

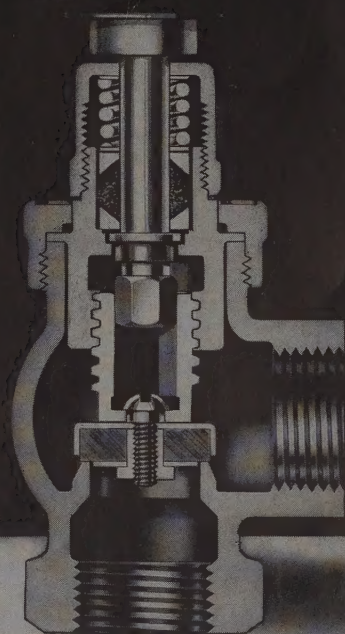


The New

# PENCIL POINTS

OCTOBER · 1942





Webster  $\frac{3}{4}$ " 603PHF Radiator Valve

## Designed for War-Time

# Iron Radiator Valves

The "Old Ironsides" line of Webster Radiator Valves and Traps complies fully with the conservation and simplification program of the War Production Board. Cast iron bodies and bonnets release critical brass; unionless female inlet and outlet connections contribute metal and machine-tool hours to the Victory Program. This all-out conservation helps keep steam available for its important heating role in war-time . . . "Old Ironsides" Valves in two sizes— $\frac{3}{4}$ " and 1"—angle body with wheel handle. Construction is a proven Webster design, meeting "spring packless" specification—a heavy spring pressing on die-molded metallic ring packing. Non-rising stem. Quick opening . . . "Old Ironsides" Traps in three sizes— $\frac{1}{2}$ " for 200 sq. ft.;  $\frac{3}{4}$ " for 400 sq. ft.;  $\frac{3}{4}$ " for 700 sq. ft. Traps employ time-tested Webster thermostatic element, a double diaphragm of phosphor bronze fully compensated for pressure . . . "Old Ironsides" Valves and Traps are available on appropriate priority.

Keep your present Webster Equipment in first-class condition—add years of life to your heating system—by following the practical heating advice in Webster Service Bulletin S-500-E. A copy is yours for the asking.

**WARREN WEBSTER & COMPANY**  
CAMDEN, N. J., EST. 1888, PIONEERS OF VACUUM STEAM HEATING



**SWIFT**, hard-hitting tanks . . .

45 thousand in 1942 . . .

75 thousand in 1943 . . .

That is America's promise to the Victory Program—and America is going to beat that promise.

It calls for construction miracles . . . huge plants to house vast assembly lines . . . new plants for principal parts suppliers.

As America builds for Victory, every cubic foot of space must be properly heated to insure maximum production.

For fifty years, steam has been recognized as the outstanding heating medium. Steam, harnessed and brought under control with Webster Steam Heating Equipment, has proved its ability to provide maximum comfort, economy and trouble-free operation.

Today, all of our facilities not required for direct war work are freely offered to architects, engineers and heating contractors working on war construction.

Essential repairs for Webster Systems are available on A-10 priority, under W.P.B. Emergency Repair Order P-84. Orders should be limited to actual needs.

Warren Webster & Company, Camden, N. J. Representatives in 65 principal Cities

**Webster**  
Steam Heating

This is one of a series of advertisements that will tell the public of the part that Webster Steam Heating and the Webster organization plays in the war effort . . . appearing regularly in leading business, industrial, engineering and technical publications.



The New

# PENCIL POINTS

KENNETH REID  
Editor

CHARLES MAGRUDER  
Managing Editor

DON GRAF  
Technical Editor

ALFRED E. GALL  
FRANK G. LOPEZ  
Associate Editors

PHILIP H. HUBBARD  
Publishing Director

JOHN ZELLNER  
Circulation Manager

Typography, Layout  
HARRY MARINSKY

Drafting  
ELMER A. BENNETT

Cover Design  
EYVIND EARLE

31 THE GREAT PURPOSE—We must aim high in formulating and executing our Post-Victory Program if we are to succeed

Kenneth Reid

32 WHAT'S IN A NAME?—Winner of our Name Contest announced and twenty-four runners-up get consolation prizes

Jury of Award

33 NEW PENCIL POINTS—KAWNEER COMPETITION—for a store design, emphasizing potential techniques, materials

William Lescaze  
Professional Advisor

37 SMITH REYNOLDS AIRPORT — Administration Building commemorates memory of a youthful aviation enthusiast

Howard Lovewell Cheney  
Architect

44 WEEK-END HOUSE — design influenced by site — a Pacific Coast cliff—and by the capabilities of local labor

Edward B. Page  
Architect

46 BEACH HOUSE — a landscape architect's retreat set naturally into an existing garden on the Long Island dunes

Albert E. Simonson  
Architect

55 LITTLE PLANS WON'T DO—should hodgepodge of political potboilers be allowed to constitute "postwar planning"?

Talbot F. Hamlin

58 KINGSFORD HEIGHTS — problems of design encountered in a community of prefabricated houses; first of a series

A. D. Taylor

69 DESIGN FOR EARNING — third in a series of articles dealing with the changing aspects of architectural practice

Arthur C. Holden

72 RUG AND CARPET MERCHANDISING — wholesale showroom for the firm of A. & M. Karagheusian, Inc., in New York

Zareh Sourian  
Architect

OCTOBER  
1942

8 LETTERS

51, 75 SELECTED DETAILS

78 COMPETITIONS

80 BOOKS

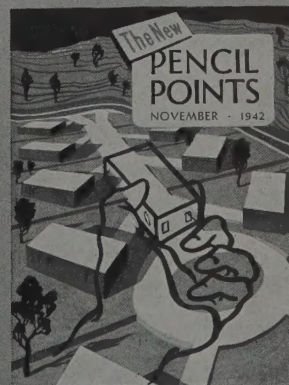
20 PRODUCTS PROGRESS

67 DATA SHEETS

90 MANUFACTURERS' LITERATURE

## NEXT MONTH

Richard Neutra discusses at length the effects of quickened obsolescence, due to the war, on our material environment and mental attitude, and on our educational theory as one means of putting thought into practice. His own experience, stemming from those years which have been labeled the Brown Decades, now spans two wars. And he is still a modernist, in that he will fight vigorously for ideas and ideals, and for their concrete fulfillment. Few are as well qualified as Mr. Neutra to assess war's impact on life and architecture. • Continuing this thought into the practical field of school design, Professor N. L. Engelhardt, of Teachers College, Columbia University, surveys the future of school design. Today's limited school plants, he believes, will not do. • Other interesting projects include a hospital designed in such a way that critical materials are almost entirely eliminated, and incorporating a new type of plan organization; Selected Details of construction; a house by Vahan Hagopian; and a discussion by Talbot Hamlin of the merits and proprieties of certain competitions.



Published monthly by REINHOLD PUBLISHING CORPORATION, East Stroudsburg, Pa., U.S.A. Ralph Reinhold, President and Treasurer; H. Burton Lowe, Vice President and Secretary; Philip H. Hubbard, Vice President; Francis M. Turner, Vice President, Executive and Editorial Offices; 330 West 42nd Street, New York, 50 cents a copy. Yearly subscription \$3.00, two years subscription \$5.00 payable in advance. To U. S. A. and U. S. Possessions, Canada, Cuba, Mexico, Central and South America. Subscriptions to all other countries \$5.00 a year. Remittances by International or American Express Money Order or by Draft on a U. S. bank should be payable in U. S. funds. Subscribers requested to state profession or occupation. Changes of address must reach us before 20th of month to assure delivery of following issue. Be sure to give both your old and new addresses. To Contributors: Articles, drawings, photographs, etc., submitted will be carefully considered, but the publisher will not be responsible for loss or damage. Copyright, 1942, by Reinhold Publishing Corporation. Trade Mark Registered. All rights reserved. Entered as second class matter, July 8, 1941, at Post Office, East Stroudsburg, Pa., under Act of March 3, 1879. Volume XXIII, No. 10, October, 1942. Indexed in Art Index.



# LET THESE 3 CEMESTO ADVANTAGES HELP YOU SPEED FACTORY CONSTRUCTION With Steel or Wood Framing!



## Cemesto Provides Strength, Efficient Insulation—and Requires No Painting, Inside or Outside!

TODAY, architects are finding Celotex's three big advantages more important than ever. Celotex consists of a cane fibre insulation board core, sealed with a special bitustating compound between two layers of cement asbestos. It combines strength, insulating efficiency, and good appearance. Thus Celotex replaces *combinations of materials* in such buildings as ordnance plants and hangars, storage buildings and ammunition depots, assembly plants and machine shops!

Celotex Celotex may be used with steel, wood, or concrete framing. Its gray cement-asbestos surfaces resist weather, resist fire, do away with need for any surface treatment, inside or outside. Now available in standard thicknesses of 1 1/8", 1 9/16", and 2"; width, 4'; lengths, 4', 6', 8', 10', and 12'. Weights, 3.8 lbs. to 5.3 lbs. per sq. ft. Write for complete architectural details and sample!

**CELOTEX**  
REG. U. S. PAT. OFF.  
**CEMESTO**  
REG. U. S. PAT. OFF.  
**INSULATING WALL UNITS**

*The word Celotex is a brand name identifying a group of products marketed by The Celotex Corporation.*

THE CELOTEX CORPORATION • CHICAGO



THE NEW PENCIL POINTS — KAWNEER ARCHITECTURAL

# COMPETITION

*"THE STORE FRONT OF TOMORROW"*

## PRIZES

FIRST PRIZE . . . . . \$1,000.00

SECOND PRIZE . . . . . 500.00

THIRD PRIZE . . . . . 250.00

5 HONORABLE MENTIONS, \$100.00 . 500.00

---

**\$2,250.00**

COMPETITION CLOSING JANUARY 4, 1943

WRITE NOW FOR PROGRAM—NEW PENCIL POINTS, 330 W. 42nd ST., NEW YORK, N. Y.

WILLIAM LESCAZE, PROFESSIONAL ADVISOR JUDGES: FREDERICK BIGGER, F.A.I.A., WASHINGTON, D. C.

MORRIS KETCHUM, A.I.A., NEW YORK CITY—SAMUEL E. LUNDEN, A.I.A., LOS ANGELES, CAL.

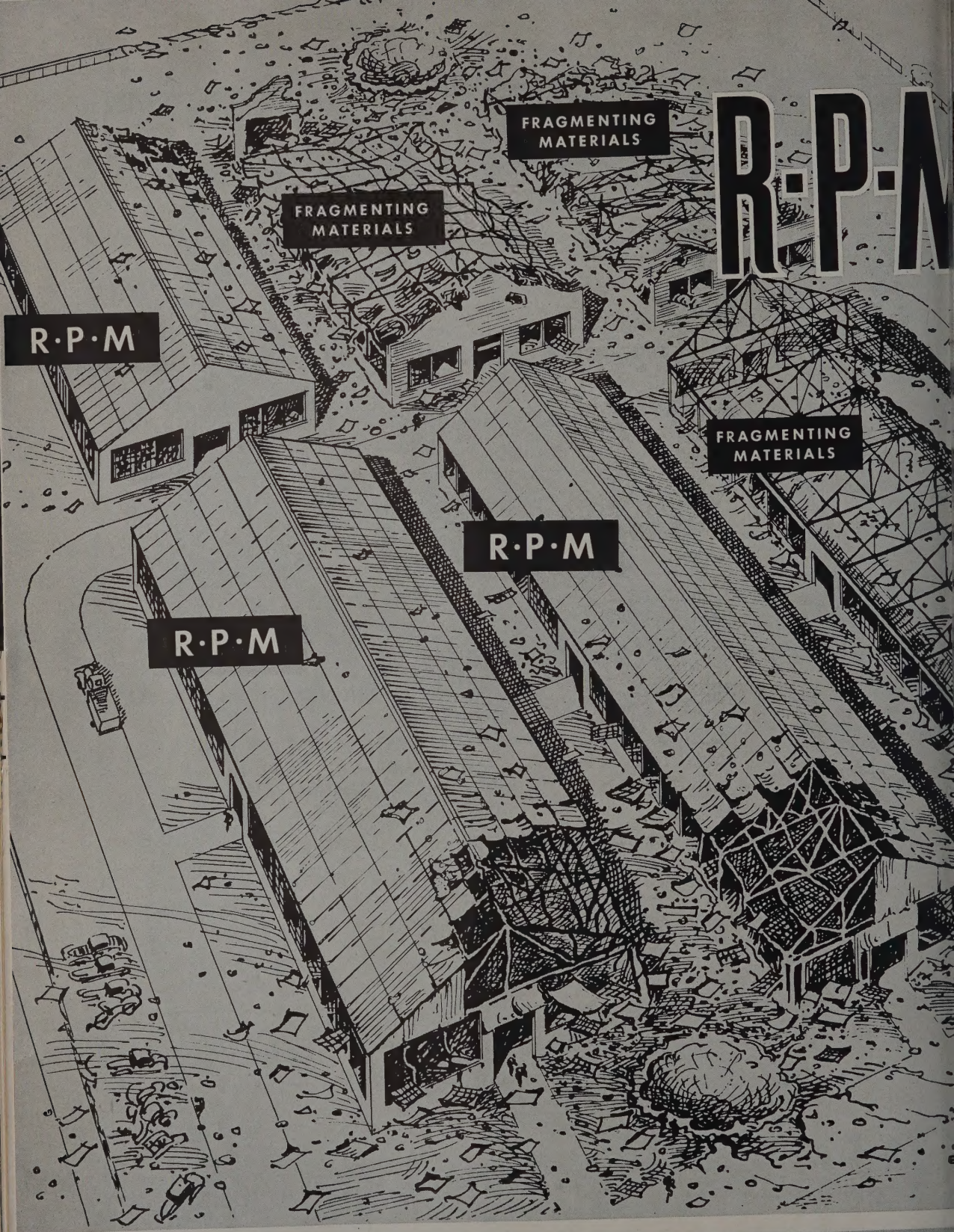
MIES VAN DER ROHE, CHICAGO, ILL.—ROLAND WANK, A.I.A., KNOXVILLE, TENN.

# Kawneer

RUSTLESS METAL STORE FRONTS • DOORS • WINDOWS

THE KAWNEER COMPANY • NILES, MICHIGAN





**ROBERTSON PROTECTE**



# A SHOCK ABSORBER

## *under Bombing Attacks*

Robertson Protected Metal (RPM) roofs and sidewalls on industrial buildings throughout the British Isles have an exceptional record of performance during bombing attacks.

Repeated instances may be cited to show that when a detonation bomb lands near a group of buildings, those covered with RPM do not fragment into shrapnel-like missiles, and suffer only relatively slight damage, while those covered with fragmenting materials are stripped of their coverings.

Actually, RPM seems to act as a *shock-absorber* when the bombs come. There are two reasons for this highly desirable characteristic:

1. The sheets themselves have a unique combination of inherent strength, flexibility and resiliency.

2. The sheets are attached to the building framework by a method which provides, in effect, an expansion joint enabling the sheets to move, or "give," under bombing pressure and suction.

Thus, the roof and sidewalls as a whole literally "breathe" under the concussions caused by bomb explosions. The RPM covering gives and takes, which means that it stands a better chance of staying on . . . damage is localized . . . plants are quickly put back to work.

The RPM method of roof and sidewall installation is a QUICK method. It is one of the reasons . . . and there are many others . . . why we say—"What we really make is time."

**H. H. ROBERTSON COMPANY**  
FARMERS BANK BUILDING • • • PITTSBURGH • PA.

### CASE V

—(See Illustration Opposite) English Bombing reported by an eye-witness. "At the (Name of plant deleted) Works there were half a dozen buildings (three covered with RPM, three covered with fragmenting materials). Two bombs fell, one striking at one side of the group and the other at the opposite side, so that the blasts came from two sides of a square. The two blasts stripped the fragmenting materials from three buildings, while those covered with RPM were damaged only a few feet from the point of explosion."

**METAL**



H. H. Robertson Co., Farmers Bank Building, Pittsburgh, Pa.

- ( ) Please send me copy of your new book, "Quick is the Word."  
( ) Please have a Robertson Engineer submit new portfolio covering your Bombing Story.

Name \_\_\_\_\_ Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_



After victory...  
what kind of HOME will she want?



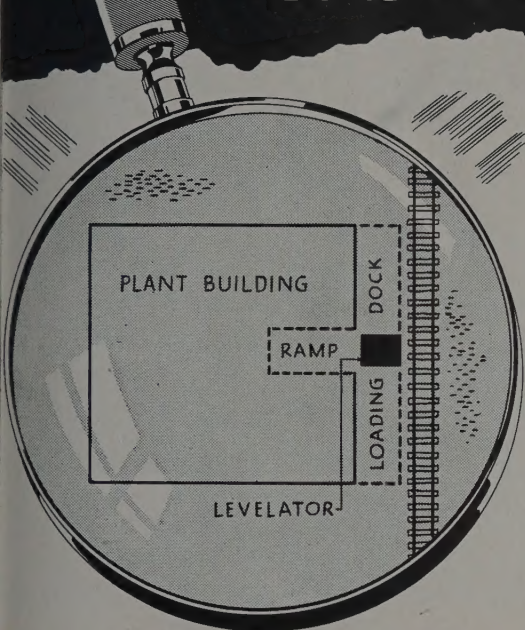
She's going to want Better Living *built-in*. For she and millions of other American women are learning that the *right* tools do the job easier, better, faster... and at less cost.

**GENERAL  ELECTRIC**

**HOME BUREAU • BRIDGEPORT, CONNECTICUT**



# The Secret of the missing LOADING DOCK AND RAMP!



It wouldn't take a Sherlock Holmes to discover that the space-stealing loading dock and ramps formerly used in this plant are missing! That's pretty obvious.

The removal of the ramp inside the building made room for four more machines. Ripping out the dock allowed traffic to flow through the doorway around either end of the building. A Rotary Levelator made all this space-saving possible.

Through unique adaptability these Oil-hydraulic Levelators are saving vital space for production and speeding up the flow of materials in plants all over America. They are easily, quickly and inexpensively installed. Simple to operate, they have the power to handle the heaviest loads with the push of a button. When lowered they fit flush with the floor, leaving a clear passage for moving traffic.

The hydraulic jack pushes the load up smoothly and quickly without the need for cables, side guide structures or other complicated mechanisms. Powered by a Rotary Power Unit (an electric pumping plant) or by compressed air, when available. Automatic wheel chocks, wheel curbs, protective skirting, and other safety devices are available.

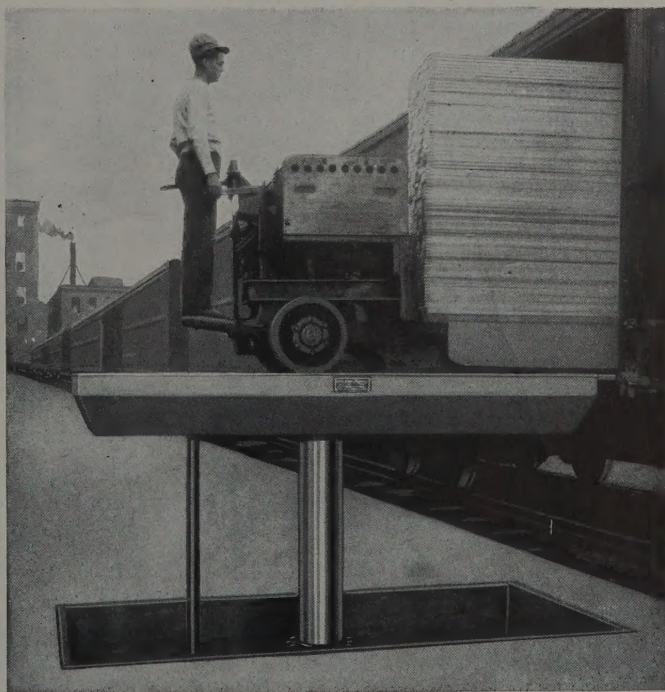
**Rotary Levelators solve a space saving problem for E. L. Bruce Co.**

## and speed up freight car loading

The loading dock and ramp at the Memphis plant of E. L. Bruce Co. formerly cut deep into usable inside space—and left no room for passage of traffic outside, between building and railroad track . . . and, too, pushing heavy loads up the ramp was hazardous. Today, all this valuable space is in use . . . the Levelator uses only 5 ft. x 10 ft.

E. L. Bruce Co. officials say: "Loading is easier and quicker. Now, more than ever, we appreciate the saving in badly needed plant space. Six years of experience has proven the ruggedness of these Levelators—the three we own have never been out of service for repairs."

Write for free Levelator Manual showing various applications. Rotary Lift Company, 1082 Kansas, Memphis, Tenn.



**Rotary**  
MEMPHIS  
**LEVELATORS**  
**FREIGHT ELEVATORS**



## "I Knew Him Well"

Ralph Adams Cram possessed that rare grace of being a wholehearted enthusiast, tireless in his efforts for a jubilant world; a world devout rather than dull, which could share his ideals. It was his unflinching belief in the richness of the civilization he sought to inspire by expression in a noble architecture that will immortalize his unique character.

Accustomed as our generation has become to opinions hedged by qualification, lack of decision, and without total conviction, Cram's militant declarations were stimulating and inspiring. He believed in a Christian civilization with its ideals capable of complete leadership in all things. In his ever exuberant way, he carried on, almost alone, a crusade for Christian art as symbolic of the powers and ideals which are needed to recreate a more perfect state in which to live.

For more than half a century, Cram labored with energy which seldom showed fatigue to produce colleges, churches, and cathedrals; expressing by enduring masonry the permanence of their purpose. No man I have ever known possessed such a true love of masonry. His was the skill of long and varied observation in many lands, which enabled him to appreciate the manifold powers and qualities that could be perfectly embodied by strong masonry. In this respect, this major quality of enduring building was shared by Goodhue to nearly the same degree. With Goodhue it was more flexible because of his brilliance of delineation, and his infinite ability to express form and detail. Cram by comparison was restrained, but always sure. Solids for him meant buildings. These solids were, by his clear perception, appropriate to the site, purpose, and proportion of the work at hand. He began with them, developing a drawing devoid of detail, containing only the center line of nave piers, the center points and radii of arches, the height and form of roof trusses. This was his church. All else came in the drafting room by long and careful study. Never was time or haste part of the problem. Thoroughness to the point of tardiness was normal, and change was never considered cowardice; rather was it encouraged courageously. Those of us who knew Cram well have wished that he had taken a like course in his written works. Here haste represented the excessive enthusiasm of an abundant vitality, and exaggeration often impaired the clear meaning of the vital truth he sought to express.

Clarity marked his plans for his

churches from his earliest work until his death. They declared his genius. Now, as he passes into history, let us recall the dignity with which he enabled to high purpose the sacred shadowed space within the church.

Of the great builder, a devout defender of the faith

"May it be said, 'Well done;  
Be thou at peace.'"

WILLIAM WARD WATKIN  
Professor of Architecture,  
Rice Institute, Houston, Tex.

\*

## Dreaming

It has taken me a long time to write this note, but I wanted to tell you that I sincerely appreciated the article in the May issue. In these days we are concerned only with how to lick the Nazi. However, in the back of our minds we are still dreaming about the architecture to come. In presenting the architects' work to the public, as you have, you are doing much to develop these dreams into actual buildings. For this I personally am very grateful.

ALDEN B. DOW, Architect  
Midland, Mich.

\*

## Scrap

Many architects have on hand today samples of metal store front settings, steel sash, stair nosings, porcelain metal, etc. We have cleaned our office of these and found that a considerable amount of metal could be donated to the scrap collection. If all architectural, engineering and contracting offices would do likewise, a considerable amount of vital materials would be made available for the war effort.

WILLIAM E. LEHMAN, Architect  
Newark, N. J.

\*

## A Good Thing

I have read Aymar Embury's letter (*Ed.—September issue, page 8*) on the Battery Park question, with your comments, with some surprise. As to Mr. Moses' achievements, I have never heard anyone speak disparagingly of them excepting when, as in the case of the Triborough Bridge and the Aquarium, there has been a considerable body of public opinion opposed to his plans. Has such opinion no right to express itself? And do Mr. Moses' large-scale visions and works necessarily qualify him to pronounce final decisions on highly-technical, small-scale problems such as the treatment of Battery Park?

My own view is that the Battery Park Competition — in the suggestion and initiation of which I had no share whatever—was, basically, a good thing. There was a feeling that the Park Department plan was not adequate to the solution, and the only way to get light on a peculiarly important, complex, and difficult subject was to subject it to the light of many minds. I think there should be an open forum discussion of the unique conditions of the site and the best uses of it for the public, both as a work of art and a place of recreation.

A LANDSCAPE ARCHITECT  
New York

\*

## SCHOOL ARCHITECTURE

The latest developments in elementary school architecture, and the importance of modern architecture in meeting a child's psychological as well as physical needs, are shown in an exhibition, "Modern Architecture for the Modern School," currently on view at the Museum of Modern Art, New York. The exhibition will be sent on a tour of schools, colleges, and museums throughout the country after it closes on October 18.

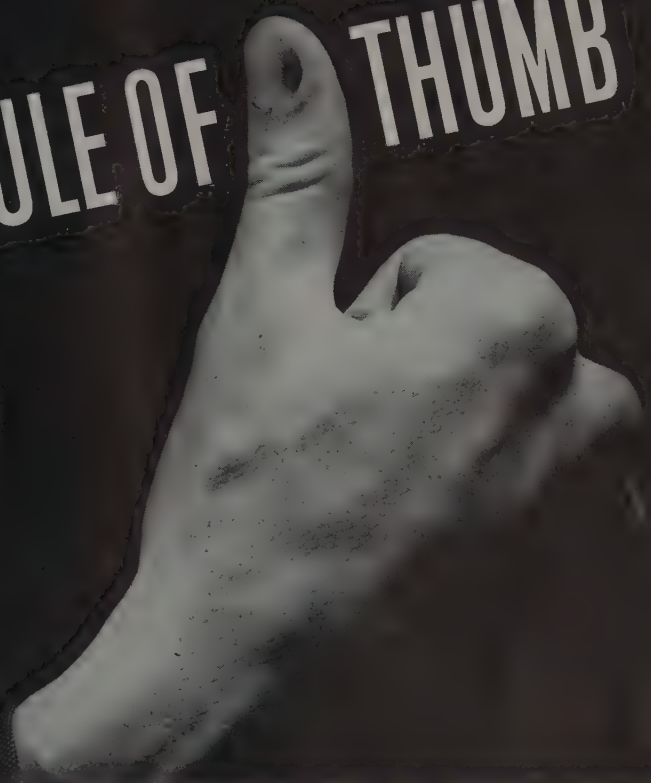
The exhibition consists of 40 photographic enlargements of the best modern schools for the elementary grades, a scale model, and 30 panels with  
(Continued on page 10)

"Can You Name This?" queries A. H. Alko, commercial artist, of South Ozone Park, N. Y. who worked on the Martian figure in his spare time. All of the "body" sections are made up of art materials commonly found on every architect's and draftsman's table. Mayhap he is the gremlin of the architectural profession





# THE RULE OF THUMB



## ...has its limitations

• Judgment based entirely on practical experience, without the help of technical training, is likely to be faulty when confronted by problems not previously encountered. And on the other hand, a college education is by no means a satisfactory substitute for first hand knowledge. All of which has a bearing on the fact that, in the Raymond organization, you have at your command 45 years of worldwide experience on over 10,000 successful contracts for every type

and size of foundation under almost every conceivable condition—PLUS the scientific knowledge to enable intelligent evaluation of new problems. • Add to these the willingness, ability, specialized equipment and financial resources to complete contractual obligations promptly, economically and satisfactorily—large or small, and wherever located—and you have the reasons for Raymond reliability.

# Raymond

**CONCRETE PILE COMPANY**

*Branch Offices in Principal Cities*

**140 CEDAR STREET • NEW YORK**

**THE SCOPE OF RAYMOND'S ACTIVITIES** includes every recognized type of pile foundation—concrete, composite, precast, steel, pipe and wood. Also caissons, construction involving shore protection, ship building facilities, harbor and river improvements and borings for soil investigation.



(Continued from page 8)

drawings, photographs, and explanatory labels which contrast the old and the new methods of elementary education and show the contribution modern architecture can make to modern education. Examples of design are shown not only in schoolhouses of the United States but in those of Brazil, England, France, Sweden, and Switzerland. A few non-elementary schools are shown, which present different problems but similar principles of design. Solutions of the problems of school-building brought about by

priorities and stoppage of non-essential construction are also considered.

Some of the schools shown are: Crow Island School (*Eliel and Eero Saarinen; Perkins, Wheeler & Will, Architects*); Consolidated School at College Station, Tex. (*Finney & Langford, Architects*); School at Ross, Calif. (*Carl F. Grommé, Architect*—see June, 1942 issue of *THE NEW PENCIL POINTS*).

## CITY PLANNING

The School of Architecture, Washington University, St. Louis, Mo., is in-

tegrating its courses in architecture within a framework of city planning, which will be introduced as a background to the lectures in architectural history and will appear as auxiliary to the courses in design. In the graduate courses, greater leeway will be permitted in the selection of a major which will become the subject of a thesis and include architecture, industrial architecture, and city planning. Any of the three options will lead to the degree of Master of Architecture.

(For work done in city planning by the architectural students at the University, readers are referred to pages 49-58 of the September issue.)



**WOOD-SECTION  
OVERHEAD DOORS  
FOR LARGE  
OPENINGS...**

# BARCOL OVERDOORS

These pictures show a 17 x 18-foot Barcol OVERdoor at the freight track entrance to a machine tool plant shipping department. This is typical of the uses where Barcol OVERdoors are finding favor, especially during war time conditions. Note the Electric Door Operator with open-close-stop push-button control which makes handling of this big door a quick and easy matter.

## SAVE STEEL...

Wood-section Barcol OVERdoors require a minimum of critical materials and are built to exacting standards which assure long life and trouble-free operation. Thousands of successful installations of large Barcol OVERdoors are to be found in all parts of the country. For engineering details and specifications to suit your needs, consult your Barcol representative.



**BARBER-COLMAN COMPANY**

100 MILL STREET • ROCKFORD, ILLINOIS

SALES, INSTALLATION, AND SERVICE REPRESENTATIVES IN PRINCIPAL CITIES

## ASA SPECIFICATIONS

The American Standards Association has announced approval of 23 standards and specifications developed by the American Society for Testing Materials. Seven deal with wrought iron and wrought steel pipe and tubing; twelve cover specifications for testing materials for boilers, pressure vessels, flanges and boltings, locomotives, etc.; two cover malleable iron castings and cupola malleable iron; two deal with fabricated steel bars and welded steel wire fabric for concrete reinforcing.

The standards, available from the Association at 29 W. 39th St., New York, are priced at 25 cents a copy, and may be ordered singly or in sets.

\*

## OBITUARIES

*Ralph Adams Cram*, internationally-known architect, in Boston, Sept. 22, aged 78. He was an authority on Gothic architecture, and was best known for his redesign of the Cathedral of St. John the Divine in New York. Other Cram designs included buildings for Princeton University, United States Military Academy at West Point, and many Gothic churches. Known as "the Savant of Sudbury" to many of his friends, he was a voluminous writer and a speaker on architectural, social, philosophical, and religious subjects.

(See page 8 for a eulogy written by William Ward Watkin.)

*Edward T. Fellows*, pioneer Minneapolis architect, died recently at the age of 76.

*Sherman W. Scofield*, architect and clubman, in Cleveland, Ohio on Aug. 4, on the fourteenth floor of the Scofield Building which now occupies the site of his birthplace.

(Continued on page 12)



HEAD IT FOR  
THE LAST...

# "Round-up"

AMERICA is engaged in the biggest round-up of all history -- a round-up of junk for conversion to war materials.

Yet millions of tons of idle metal are still in hiding, in spite of this nation-wide campaign. Some of it may be in your home, or factory, or warehouse. Worn-out machinery, pipe, wire, sheet metal, odds and ends -- all, converted to scrap, will go to produce more than double their own weight in prime fighting steel.

To collect the 6,000,000 EXTRA tons of scrap steel that our war needs dictate, means that YOU and every other citizen must contribute every pound of useless metal you can corral.

Don't fail Uncle Sam in this drive. Get out YOUR scrap. Start it on its way. Head it for its last round-up.



THE YOUNGSTOWN SHEET AND TUBE COMPANY  
YOUNGSTOWN, OHIO



## OBITUARIES (from page 10)

DEWITT M. COLLIER, A.I.A., in White Plains, N. Y., aged 74. As a member of the New York State Architectural Bureau, Mr. Collier designed many public buildings during his 38 years in office.

JACQUES AGGIMAN, internationally-known chief executive of the architectural and engineering firm of H. Craig Severance & Associates, Washington, D. C., aged 50. His operations included many projects in Turkey, Eng-

land, Canada, France, Greece, Yugoslavia, Iran, Bulgaria, Syria and Egypt.

ARNE DEHLI, emeritus member of the A.I.A., August 12, aged 84. He was former head of the Department of Fine Arts and Architecture of the Brooklyn Institute of Arts and Sciences. Born in Norway, he studied in Europe before coming to America where he designed churches, one of the first loft buildings in New York, and other works. He was the author of "Details of Byzantine Architecture."



## MEDUSA *white* FLOORS give light to the dark areas



Engineers, architects, and airplane manufacturers have put their approval on Medusa White Portland Cement floors to obtain better lighting in the dark areas under planes. This approval was not given until the efficiency of the white floor in reflecting light had been proved conclusively in a number of bomber plant installations. In these plants the white floor aided in increasing production, showed a substantial saving in the number of required lighting fixtures and in the consumption of electricity for lighting. Too, they have been in use long enough to prove that the extra cost of installing and maintaining white cement floors is soon offset by the saving on fixtures and electricity, and by the increase in production. Medusa White floors are practical in many types of industrial plants and can be laid over existing gray concrete floors. Our engineers will be glad to work with you. Write today for details and specifications.

# MEDUSA

PORTLAND CEMENT CO.

1004 MIDLAND BLDG. • CLEVELAND, OHIO

Also made by Medusa Products Co. of Canada, Ltd., Paris, Ontario

## A Day at the Ministry

The following story, reprinted from the August issue of THE ARCHITECTS' JOURNAL, London, not only combines wit and charm, which make it entertaining reading, but has application to our American scene as commentary on bureaucracy. It will interest and perhaps encourage any who have been annoyed by ponderous unwinding of red tape many public agencies to know that British are similarly affected.

A pale autumn sun was shining through the window of the dining-room where John and Frances Foster (A.A.R.I.B.A.) were eating their breakfast. It was a pleasant, untidy little room which did not even attempt to conceal the fact that it also served as Fosters' office and nursery. A square leaned against a cot, a once armed Teddy-bear shared the top of a plan-chest with a pile of *Architectural Reviews* and a bottle of sherry, while beneath the dining-table, whose polished birch surface bore the scars of a slipped drawingboard, was seated the youngest Foster. He was happily engaged, licking over some lino samples, humming and squeaking to himself.

"Anything good in the A.J. week?" said John without looking from his porridge.

Frances flicked over the pages. "Quite a nice house; American course."

John assumed the high-pitched monotone of a soothsayer. . . . "I see rugs . . . venetian blinds . . . exposed polygonal stonework. . . ."

"Quite right, darling," said Frances placidly, "and all done a good deal better than you or I ever did it." She sighed a little, remembering suddenly the familiar smoky atmosphere of the fifth year studio. "More coffee?"

"No time. As a Civil Servant must be on time, or what would Horace Wilson say?" said John. He seized his hat from its perch, kissed Frances, removed a pair of springboots from the pouch of Junior's cheek, and was gone.

Junior's squeaking swelled to a wail of despair, compelling Frances to take him on to her knee. As she soothed him, she wondered for the umpteenth time exactly how John spent his time at the Ministry. He never seemed able to explain just what he did, and when she found curiously irritating, for the days before the war she had taken such an intimate and active part in his professional life. Now neither of them ever touched a drawing-board, and John never asked her advice—how indeed could he?

(Continued on page 14)



# How you made thousands of homes more livable, more economical



## ANACONDA BRASS PIPE OR COPPER TUBES

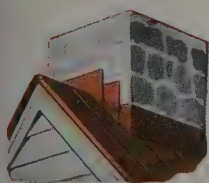
**RESULT:** Owners were saved the inconvenience and expense of pipe repairs and replacements caused by rust. And at the same time they have piping that will deliver a full, rust-free flow of water.



## EVERDUR<sup>®</sup> METAL HOT WATER STORAGE TANKS

\*Reg. U. S. Pat. Off.

**RESULT:** Owners will never experience the unpleasantness of hot water discolored with tank-generated rust. And they have strong, welded, non-rust tanks to give unexcelled service year after year.



## ANACONDA COPPER FLASHINGS AND VALLEYS

**RESULT:** There can be none of the water damage to a home's interior that rusted metal work so often causes. And, with copper gutters and leaders, the owners have lasting, economical rain disposal systems.



PRODUCT DEVELOPMENTS which promote efficiency and reduce upkeep will always be the aim of the Anaconda Organization.

Although we are now engaged entirely in war production, we are looking also toward the time when Anaconda Copper and Brass . . . in old and new forms of usefulness . . . will be ready for a booming building industry.

4215

### THE AMERICAN BRASS COMPANY

General Offices: Waterbury, Conn.

Subsidiary of Anaconda Copper Mining Company

In Canada: Anaconda American Brass Ltd., New Toronto, Ont.



# Anaconda Copper & Brass



(Continued from page 12)

Twenty minutes later John was wedged in the lift which was bearing him to his office on the fifth floor of the elderly block of mansion flats requisitioned by the Government to house his Ministry. It was a dark, echoing building, full of sudden draughts, and as blood-red and cavernous as the belly of some huge animal. The lift moaned upwards with its load. Against the twisting lily-roots of its art-nouveau interior, the mild and unenthusiastic eyes of John's companions gleamed fishlike through a haze of pipe-smoke.

John felt his depression mount as he regarded them. They were a complacent-looking crowd, Burberry-clad, soft-hatted and bespectacled. Every self-important face bore that look of furtive triumph which is the property of the man who has a safe job and the minimum of individual responsibility.

The lift sighed to a standstill, disgorging its passengers into a dark corridor lit by naked bulbs, and lined to dado height with glazed, green, and embossed tiles.

John hurried along this until he reached a door which bore, in execrable lettering, his name. His office smelled like a disused schoolroom, and he went straight to the window, flinging it wide

and letting the chill September air sweep in to stir the papers on his desk.

The door opened again and Mr. Clark, his colleague, entered. He was a bald, shapeless little man who had spent his life in the lower grades of Government service and whose daily routine was as inflexible as his bowler hat.

The first hour of his morning was spent locked in the lavatory with the *Daily Telegraph*. Then, after an interval for tea, Mr. Clark would launch into his daily battle over the 'phone with some crony in another department over some missing stores. In between the rounds he cleaned his pipe, repeated at length to John what he had read in the paper, and wrote irritable little minutes to his crony confirming what he had just said on the 'phone.

Although he was a bore, John quite liked him, and he found him invaluable on matters of Ministry procedure. "Morning, Mr. Foster," said Mr. Clark. (Everybody in the Ministry called everybody else Mister.) "I should close that window if I were you. Catch your death."

He extracted the *Telegraph* from his mackintosh and left the office.

John closed the window and sat down at his desk. The morning mail had not arrived, but there were two communications in his IN tray. One

was an inter-departmental minute from the Director of Personnel. "A decision has been reached," it announced, "what John assumed to be English, regarding the desirability or otherwise of the wearing of stockings by members of the staff. In view of the approaching warm weather, it has been agreed that these items of apparel may be dispensed with if so desired."

John placed this in the OUT tray and picked up the other note. It came from the Accountants Dept. (1172c) and was headed Ref. Travel Claim HDC/743/2(e), dated 7/1/40. "You have omitted to state," continued crossly, "the time taken in transit from Paddington to the Ministry as required by para. 12 of Chap. 16920/LC/60 A. O. (7) Ministry Regulations (Amended 1/9/39 Ed.). Claim returned for completion."

John's eye wandered wearily over the waste of symbols, numbers, and reference figures. The trouble about this sort of letter, he thought, as he put it aside to deal with later, is that it is so exactly like the funny imitations which you see in *Punch*.

He phoned for some files, and while awaiting them he sketched a new layout for his office on the gritty blotting pad. As he drew in the circle—

(Continued on page 16)

## —STANDING GUARD—

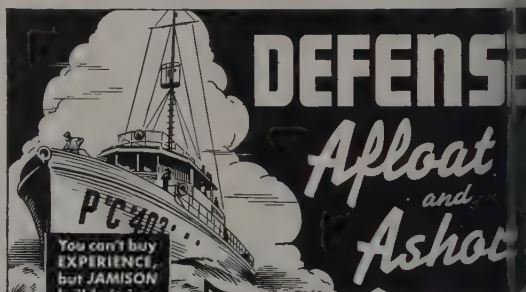


*against moisture*

Cabot's Waterproofings—applied outside above grade—seal the pores and stop moisture *before* it can saturate brick and cement walls and thence menace building interiors. Low in cost. Easy to apply. Permanent. Prevents efflorescence on bricks. 2 Types—one for red brick and dark surfaces; one for cement, stucco, stone, yellow brick and light surfaces. FREE—write today for our helpful Waterproofing Booklet. Samuel Cabot, Inc., 1297 Oliver Building, Boston, Massachusetts.

# Cabot's

**Clear Brick Waterproofing  
Clear Cement Waterproofing**



In War, Jamison-Built Doors serve Uncle Sam in the first line of defense—afloat and ashore.

But Uncle Sam's war effort demands protection of ALL perishable food.

Are your doors doing their part? Check all the doors. Be sure they will give the protection needed in war—and in peace.

Consult nearest branch or address

**JAMISON  
COLD STORAGE DOOR CO.**

Jamison, Stevenson and Victor Doors  
HAGERSTOWN, MARYLAND, U.S.A.



A Typical  
Jamison-Built  
All-Steel Door.  
Send for Bulletin 124

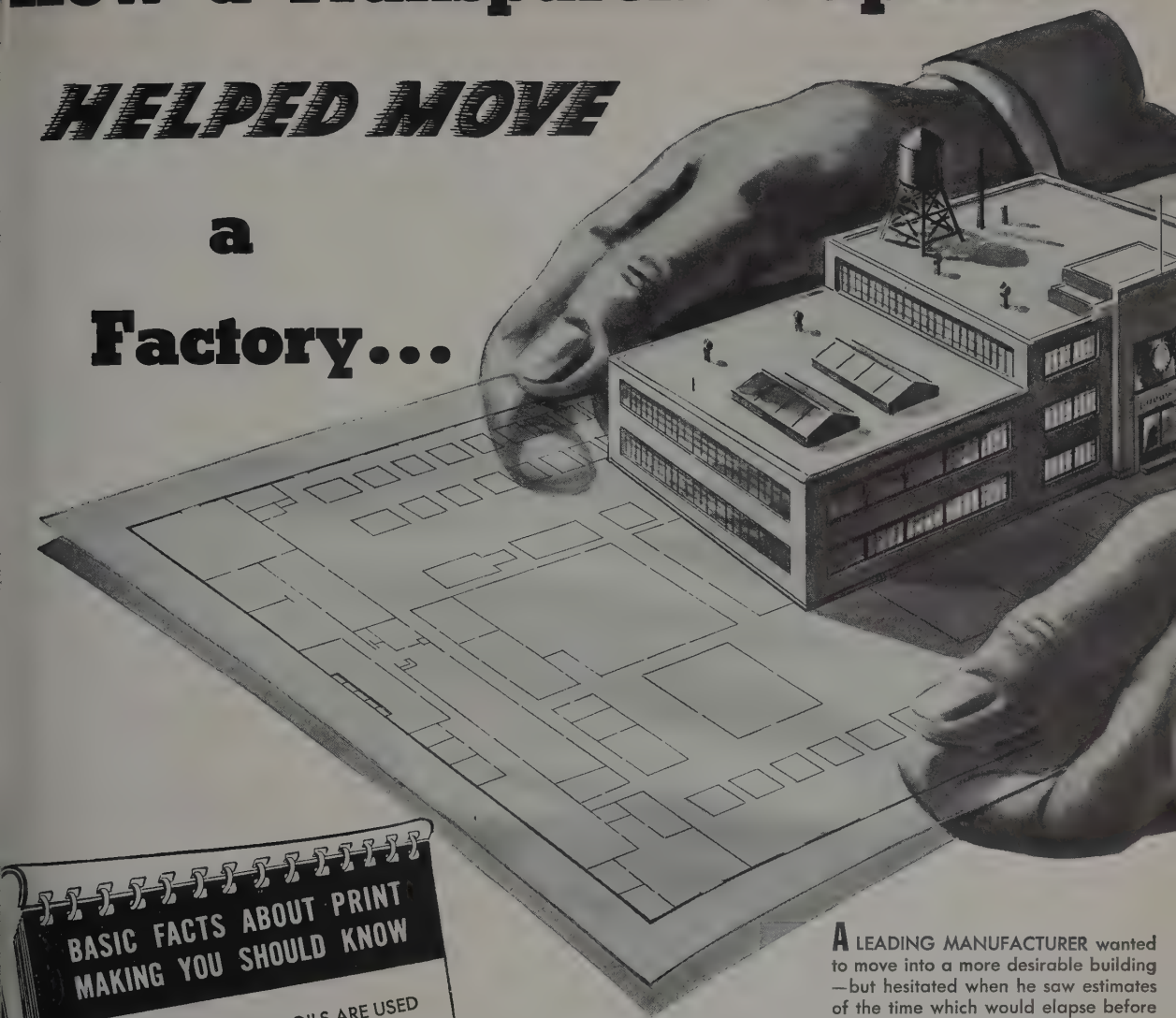
**JAMISON**  
BUILT COLD STORAGE DOOR



# How a Transparent Duplicate

## *HELPED MOVE*

a  
**Factory...**



### BASIC FACTS ABOUT PRINT MAKING YOU SHOULD KNOW

OZALID TRANSPARENT FOILS ARE USED TO MAKE COMPOSITE PRINTS—The extreme transparency of Ozalid foil allows using multiple layers at one time to make a composite print. Thus, if you have separate details—each on a different foil—which you want brought together in one print, merely place the foils, one on the other, and feed with a piece of Ozalid sensitized material into the white-print machine.

Consequently, you can make prints which will show such details as plumbing and heating, power and pipe lines, etc., either separately or combined.

Foil copies of original drawings are made the same as standard whiteprints.

SPECIFY *Ozalid* WHITEPRINTS

**A** LEADING MANUFACTURER wanted to move into a more desirable building—but hesitated when he saw estimates of the time which would elapse before he could begin production.

Ozalid then showed how five hundred hours could be saved in drafting time alone! First, instead of making multiple drawings of the master floor plans—Ozalid transparent duplicates were quickly made. The draftsman then added—direct to the duplicates—the plans for machinery layout, ventilating and heating, transmission and beltings, electrical and plumbing connections, etc. These duplicates were used to produce the desired number of work prints. Thus, in changing over . . . time and labor were saved.

Today, many manufacturers are reorganizing factories and assembly lines . . . making frequent changes in product design. And the Ozalid Process is giving them a "head start" in vital war production. An Ozalid whiteprint machine turns out standard and transparent prints in two quick steps—Exposure and Dry Development . . . without the wasteful tie-ups which are a part of "wet" developing methods. And Ozalid's wide variety of sensitized materials allow you to: cut drafting time . . . speed the making of corrections . . . turn out whiteprints which will have the most "back bone" in the busy shop or sun-baked field.

Write for new catalog. See how the Ozalid Process can help you!

**OZALID PRODUCTS DIVISION**  
GENERAL ANILINE & FILM CORPORATION  
JOHNSON CITY, N.Y.

Ozalid in Canada - HUGHES OWENS CO. LTD., Montreal



(Continued from page 14)

lines (for messengers and visitors) he was swept by a wave of nostalgia for his T-square and his yellow scale with its chipped edges. Next leave day he really would get down to a bit of drawing.

The files arrived and he settled down to read up the history of the case which was to be discussed at the 11 o'clock conference. At 10:30, two cups of bright orange tea arrived. The thick white cups, distilling a strong aroma of umbrella drippings, were borne reverently in by an elderly messenger who walked with a curious clicking noise. Clark, who had a facetious wit, used to remark (on most mornings) that it was the death-watch beetle at work. The old messenger did nothing but brew and distribute tea (at 1½d. a cup) throughout the day, and though paid by the Ministry presumably for some official service, he was never seen to perform it. He published no accounts and was reputed to be very rich.

At exactly 11 o'clock, John walked along to the conference room with his burden of files. He did not look forward to the meeting. He was used to making his own decisions and to standing by them, and he disliked these conferences, which were erected like

umbrellas to shield individuals from responsibility. Nor was he yet accustomed to the types who attend them—the plaintive, the facetious, the man who had served out East, the man with the *idée fixe*, the voluble and the silently obstructive. He chafed and fidgeted as the Civil Service jargon swam heavy and unfamiliar through the smoke-laden air . . . "procedure . . . optimum . . . relevant . . . authority . . . desirability . . . nugatory . . . duly ascertained. . . .

Never, he thought, as he doodled idly over his papers, had he heard authority more debated and less used. The conference lasted an hour, and three minor decisions were reached, "subject, of course," as the chairman remarked, "to approval from the S.O.'s department."

Who was it, he wondered, who once described the Civil Servant as an inverted Micawber, waiting for something to turn down?

As John strolled back to his room he wondered if, through inexperience, he was misjudging his colleagues and their methods. Was this cats-cradle of conferences and "paper-chasing" perhaps necessary? Was this haggling parsimony in reality a conscientious guarding of the nation's cash, this paralytic progress to action in fact a

justifiable caution to avoid reckless decisions? Or was a ramshackle, top-heavy system being desperately upheld by a routine-ridden set of petty tyrants with no vision beyond their blotting pads, and one eye fixed firmly on their pensions.

Back in his office Clark was, as usual, on the 'phone, and some more files had arrived. He glanced through them and decided to deal with them after lunch. He always tried to answer letters the same day, a symbol of protesting energy which amused Clark who was fond of saying that the longer you keep an urgent letter the less urgent it becomes.

John had just decided to go early to lunch when the bell shrilled. It was the boss, the S.O., a senior Civil Servant who lived on the first floor in an office with a carpet and who was very rarely encountered. John knew him as a conscientious and loyal official—slow, humourless, hardworking and unfailingly obstructive. What the he did the old man want now?

He rushed down the stairs two at a time and pulled up against the S.O.'s door, straightening his tie. It was quite absurd the way this headmaster's-stuff feeling returned whenever he was summoned by that bell. He knocked and entered in a manner which he hoped combined the right mixture of courtesy and nonchalance.

"Ah, Foster," said the S.O., looking over his spectacles.

"Yes, sir?" said John inquiringly.

"You, ah, were an architect were you not, before you entered this department?"

John looked surprised. Were his qualifications then at last to be used? Perhaps the offer of the post of architectural consultant to the Ministry. He would ask for at least £1,150. "Well yes, sir, as a matter of fact, I was."

"Ah, good," said the S.O. "Forgive my bothering you"—John smiled deprecatingly—"perhaps you can help me fix this drawer"—he tugged at the handle—"it's jammed and I can't get it open. A trivial matter, but in my long experience I have found that always pays to go straight to the expert—however small the problem."

"Typical of you," muttered John to himself, "that you chose the wrong expert."

"Well, sir," he said, "I'm no joiner but I'll see what I can do. I expect it's the damp."

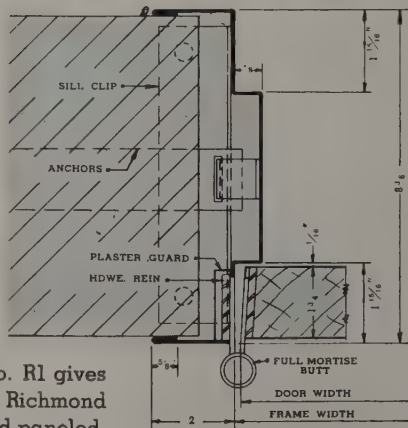
He got down on his knees and started to ease the jammed drawer.

At any rate, he thought, as wrestled with the job beneath the benevolent eye of the S.O., I shall be able to tell Frances what I did at the Ministry to-day.

# THIS DRAWING

is from the

## New RICHMOND SERVICE SHEET R1



Newly issued Service Sheet No. R1 gives you quick facts on 8 types of Richmond Kalamein Doors—both flush and paneled. Service Sheet R1 measures 17" x 22" and folds to 8½" x 11" with the A.I.A. file number for convenient reference. Everything is given on this service sheet that you will want to know in detailing and specifying Richmond Kalamein Doors. Send for Service Sheet No. R1 today—and ask for extra copies for your assistants.

THE **RICHMOND** FIREPROOF DOOR COMPANY  
NORTHWEST FOURTH STREET RICHMOND, INDIANA



# SPACE AND TIME FOR Victory

In mile after mile of factories, offices, and laboratories, America is providing Space for Victory—floors that will take the hardest wear, will promote efficiency by quietness and foot-ease, will require almost no maintenance—Kentile floors! And they'll be "ready for work" on time, too, because this new floor is so speedily laid (piece by piece). We are proud of Kentile's war work on the biggest jobs. We are proud, too, that it is also one building material so plentiful you can get it for those repair jobs and "freshening up" tasks important on the home front. Know all about this remarkable, superior new material. Mail the coupon for the free booklet giving all of Kentile's advantages, among which are:

1. Kentile, although resilient and beautiful, is one of the most durable floorings—used in heavy duty plants.
2. Kentile is one of the lowest cost floors made.
3. Kentile is moistureproof—used for countless "problem" areas—even on concrete in contact with earth.
4. Kentile resists all regular staining—cleaned by a mop.
5. Kentile is laid with amazing speed—is available at once—installed by contractors in any part of America.
6. Kentile offers a million patterns and colors—any design you conceive with its 44 colors, 15 tile sizes.
7. A Kentile floor can later be altered in any part without disturbing the other areas.

## KENTILE

*Asphalt Tile*  
Trade Mark Reg.



DAVID E. KENNEDY, Inc., Dept. D.  
60 Second Avenue, Brooklyn, N. Y.  
Send ☐ Catalogue ☐ Grease Tester ☐ Representative

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY, ETC \_\_\_\_\_





## *We Believe You Want Von Duprin Victory Devices Made Like This:*

If there were no enforced restrictions on metals, and the whole matter was in your hands, you'd certainly want Von Duprin to give up the precious bronze and brass so badly needed for war.

You would want us to use malleable iron—the strongest and safest substitute—the one available metal with tensile strength actually more than twice that of cast bronze.

You would, wouldn't you, want Von Duprins—even though installed for temporary use—made so strongly that they would stand up

under any emergency? And we believe that you would want them built with the same care, with the same refusal to compromise on workmanship that you have known in Von Duprin for so many years.

That, sir, is exactly the way Von Duprin Victory Devices are made. They WILL stand up . . . they WILL do their job . . . they WILL get people out of your building . . . just as did their more handsome predecessors. THEY ARE REAL VON DUPRINS!

### **VONNEGUT HARDWARE CO. . . . INDIANAPOLIS, INDIANA**

*Von Duprin Fire and Panic Exit Latches Are Listed as Standard by Underwriters Laboratories, Inc.*



they say .....

"History is merely gossip."

—Oscar Wilde

—That one Washington architect has solved the housing problem: he produced designs for an attractive, inexpensive houseboat.

—That war housing in some localities gets snagged in red tape while private builders get priorities with little difficulty.

—That Defense Homes Corp., formerly an RFC subsidiary, is now completely transferred to NHA. But it remains a separate corporation, will finish and manage its own projects, and may be assigned additional projects. Maybe DHC could assure its income by giving lessons in self-perpetuation to other bureaus.

—That we can expect war plant construction to be even more drastically limited in the far future.

—That Ronald Allwork, whose appointment as Acting Chief of a WPB Branch is announced elsewhere in this issue, was billed by WPB as a former "specialist in specification data for building products." Mr. Allwork was first an architect. But he is also a diplomat, and if officials frown on architects—

—that WPB's scheduled construction program, covering all government and civilian work, and totaling 20 billion dollars, is slightly more than half complete. Construction for 1942 may top 13½ billions—20 percent more than 1941.

—That lack of ladies' rest rooms has prevented many war plants from employing thousands of women to replace able-bodied young men.

—That one industry which has benefited from war plant activity is the sound amplification manufacturing business. Not only is instant communication provided for paging, air-raid alarms and emergencies, but the sound systems also provide music while the men work.

—That those most concerned with the protecting the nation's foundations are not architects. They are manufacturers of women's girdles, who enforce have no rubber to put in their products.

—That maybe the more than thousand large and small manufacturers of brick and tile are due for substantial increases in business, now that the greatest of all lumber-producing countries is short of lumber.



published as a supplement  
to the new pencil points

october, 1942

## big buildings for scrap

moses razes new york's white elephants; 22-story building first

New York—The City of New York—and possibly other municipalities will have followed its lead by the time this is published—is preparing to raze scores, maybe hundreds, of vacant, obsolete buildings for their scrap steel and other metals. Announced late in September, the program can become the biggest single phase of the city's scrap metal drive.

First on the list for demolition, is a 22-story ghost building, started in 1924 as a speculative venture, and never tenanted. In 1940, New York City took it over for back taxes. Fifteen hundred tons of steel scrap are expected to be salvaged from its now profitless framing. Also high on the list are two privately owned brewery buildings.

In discussing the New York program, Chairman Nelson of WPB has stated that "money is of no immediate concern; collection of scrap metals and other strategic materials is paramount." He is seeking legal advice on WPB's powers, to order old buildings torn down, and to give local authorities all possible condemnation powers and financial aid.

The New York building-demolition program is in the hands of Robert Moses, Commissioner of Parks. Mr. Moses is acting in the city for War Materials, Inc., a company organized by the steel industry

continued on page 4

## civilian construction cut again wpb amends conservation order downward

Washington: All types of civilian construction were drastically cut by WPB's amendment, early in September, of the conservation (stop - building) Order L-41.

### one limit raised

Residential construction, under the new regulations, is restricted to \$200 per project per year; the former limit was \$500. Commercial building can not cost more than \$1,000 for the more essential types, \$200 for such buildings as clubs, auditoriums, assembly halls, and retail store buildings for not more than five occupants. Previous-

ly, the limit for all commercial buildings was \$5,000 per project.

Agricultural and industrial limits remain at the earlier figures, respectively \$1,000 and \$5,000. The one limit raised concerned multi-family construction, which was formerly \$1,000 and is now \$5,000.

In every case, the owner must be able to obtain all materials required to complete the project without priorities assistance. If he can not, special WPB authorization is needed even if the project costs no more than the prescribed maximum. Furthermore, no mate-

continued on page 4

## price control regulations for building construction

Tentative regulations for price control in the building industry have been submitted to organizations active in the field for suggestions and criticisms. The proposed program differs somewhat from methods established under the General Maximum Price Regulations.

For work costing less than

\$50 charges are to be March, 1942 charges for similar work plus increased labor costs up to July 1, 1942. For more expensive work, for all forms of cost-plus contracts, maximum prices are to include actual costs of materials, labor, rentals of operating equipment and

continued on page 4

## "we knew it all the time" dept.

"Government agencies in the field will not telegraph pertinent information to the New York bureau, where the special staff will expedite such cases. A considerable saving in time will be effected," WPB officials said. "From a story in the N. Y. Herald Tribune on establishing a special WPB reconstruction division in New York.

## architects design new rubber factory

*Detroit*—The architectural firm of Smith, Hinchman & Grylls, Inc., has designed a \$4,000,000 artificial rubber plant.

In designing the plant, the architects had to work in close cooperation with Joseph E. Seagram & Sons, Inc., who will operate it, while perfecting the continuous cooking process involved.

## hardware manual issued

*Washington*—WPB has issued a Builder's Hardware Manual in which are listed the size, quantity and kinds of hardware permitted in government projects. After October 15th, the manual's provisions are to apply to all Army, Navy, Maritime Commission work.

## more housing at willow run

Construction of an additional 2,500 publicly financed family dwelling units at Willow Run, Mich., has been approved by the WPB it was announced by Maury Maverick, Chairman, Willow Run Committee.

The rest of the 13,000 unit National Housing Agency program, which will provide housing facilities for approximately 15,000 war workers and their families, was approved in July. The full Willow Run program is as follows:

*Publicly financed housing:* 3,000 dormitories, 1,000 temporary dormitory apartments, and 4,500 family dwelling units (including the 2,500 announced August 29).

*Privately financed housing:* 4,500 family dwelling units.

## wpb sets up reconstruction staff

*New York*—WPB has set up a special staff in the Empire State Building, New York City, to expedite applications for reconstructing properties which have been dispossessed by war agencies.

Thus, if any government war agency has to dispossess the occupant of a building, its owner can apply for similar facilities to be built elsewhere. Applications are to be made through field agencies, which telegraph necessary information to the New York staff.

## routine military construction priorities changes

*Washington*—Military construction, to be owned and operated for the Army, Navy or Maritime Commission or Civil Aeronautics Authority facilities for Army or Navy use, are henceforth to receive priorities in the P-19-H series, following application on one of the PD-200 forms. WPB approval is required. This, in effect, gives the military a reasonable authority over their construction, subject to WPB review.

### some work excepted

"Command construction" is excepted from the above provisions. This type of work includes building ordered by the Army Chief of Staff or Navy Chief of Operations for projects having value less than \$500,000 each, and emergency flood control projects.

## over 90,000 fha housing units started in 15 weeks

Commissioner Herbert Emmerich of the Federal Public Housing Authority announced 91,727 units were placed under construction in the War Public Housing Program during the 15-week period ending August 14. The total included 62,036 family dwelling units, 15,000 dormitory units for single men and women, 11,076 dormitory apartments for couples, and 3,615 trailers.

## urged to save scrap

Architects are urged by C. W. Palmer, A.I.A., President of the Detroit Chapter, to search their sample rooms for metal articles which can be contributed to the salvage campaign. Many samples are obsolete and no longer serve useful architectural purposes.

## wpb and opa rulings of the month

**White oak lumber:** use for veneers prohibited; sale of veneers restricted to essential war requirements.

**Construction:** Cost limits drastically cut (see story on preceding page).

**Plywood:** Prices of three lower grades adjusted to bring them in line with upper grades.

**Armored cable:** manufacture prohibited.

**Metal doors, frames, shutters:** production for civilian use banned.

**Dimout and blackout lighting fixtures:** manufacture or sale prohibited unless fixtures conform to Army, Navy or Maritime Commission specifications.

**Maintenance construction:** operators of industrial plants, office buildings, apartments, etc. can obtain 6-month blanket construction permits, instead of individual permits for each job.

**Housing utilities:** (general) order amended to assure completion of high-rated projects.

**Construction machinery parts:** manufacture to be expedited by WPB.

**Lumber:** softwood regulations established (see story in this issue).

**Hardware:** manual of specifications released (see story in this issue).

**Cork, cork products:** use in freight elevators prohibited.

**Steel:** emergency specifications issued (see story in this issue).

**Douglas Fir logs:** allocation completely controlled.

**Hardwood lumber:** maximum prices established in dollars and cents for Appalachian hardwoods.

**Used construction equipment:** all owners must report to WPB's nearest office by Oct. 1.

**Western hemlock, Noble fir:** all aircraft grades of logs frozen.

**Fluorescent lighting fixtures:** freezing order extended.

**Military Construction:** Projects up to \$500,000 get priorities, subject to WPB approval (see story in this issue).

**Steel Specifications:** Stresses mandatory at 24,000 lb. per sq. in. (see story in this issue).

**Licensing:** Practically all lumber, lumber products and building materials dealers are automatically licensed under OPA Supplementary Order 18. Licenses can be revoked for violation of price regulations. Registration, not now required, can be demanded in the future. A somewhat similar licensing control has been established for iron and steel distributors.

**Lumber prices in Michigan, Minnesota, Wisconsin:** ordered reduced to Oct. 1941 levels. Similar action for Northeastern White Pine.

**Gas Unit Heaters** suitable for factories: Restrictions on manufacture removed.

**Furniture:** Completion of partly manufactured upholstered furniture permitted; steel spring manufacture prohibited; restrictions on furniture renovating.

**Light bulbs:** Variety permitted to be manufactured is cut more than half; total production to remain the same.

## "redtape" wafflebottoms issue dictionary

*Washington*—A new, though non-official, "governmental" organization is the Wafflebottom Club, so named because of the cane-seated chairs in Government anterooms. As one of its first humanitarian services, the Wafflebottom Club issues a glossary of official terminology, in an effort to fill a shrieking need. Tentatively entitled "Redtape," the first installment of the Wafflebottom Dictionary follows:

**Milk Route:** Daily round of visits to WPB, OPA, OPM, OWI, SPAB, ODI, ODT, War, Navy, Treasury and Agriculture Departments.

**Torch Bearer:** Sympathetic Government subordinate who actually takes up a case, whether or not he carries it through.

**Under Consideration:** Never heard of it.

**Under Active Consideration:** Will try to find the file.

**Having Received Careful Consideration:** Phrase used to cover a considerable time lag.

**Have You Any Remarks:** Fer gossakes, what's it all about?

**That Project Is In the Air:** Am completely ignorant of the subject.

**You Will Remember:** I don't!

**Transmitted to You:** You hold the bag awhile—I'm tired of it.

**Concur Generally:** Haven't read the documents and don't want to be bound by anything I say.

**In Conference:** Same meaning as in private practice.

**Kindly Expedite Reply:** Fer — sake, try and find the papers!

**Passed to Higher Authority:** Pigeonhold more sumptuously.

**In Abeyance:** Graceful way of acknowledging a disgraceful state.

**Appropriate Action:** Do you know what to do with it? (Not the obvious answer)

**Giving Him The Picture:** Process of transmitting: long, confusing and inaccurate statement or description to a newcomer.

—Courtesy "The Blueprint," *Westchester Co. (N. Y.) Soc. of Architects*



# miles coleman predicts huge house demand

## foresees need for high-priced and low-cost houses

Writing in the September issue of "Banking," official journal of the American Bankers' Association, Miles L. Coleman sets forth an authoritative picture of the demand for houses after the war. His remarks are based on experience gained as Research Director of the Twentieth Century Fund's Housing Survey, on years of responsibility as head of Federal housing agencies, and on practical architectural experience. Mr. Coleman states:

The impact of war upon house-building, suggests both that the post-war period will be one of unusually large building activity and that this activity may be carried on in unfamiliar ways and under unfamiliar conditions.

### some effects like the depression's, others differ

In a few respects the effects of the war are similar to those of the depression. Private building is rapidly declining. Building organizations—particularly small ones—are being forced out of business. Housebuilding labor is being dispersed in other activity. Owing to the difficulty even of making repairs, the condition of the existing stock of housing continues to decline. But here the resemblance to the depression stops. In all other ways, the conditions likely to be present at the beginning of the post-war era vary strikingly from those that we faced during the early Thirties.

### bases for predictions

1. House rents instead of declining will be kept from soaring only by rigid control, almost certain to be carried over into the new period.

2. General levels of income are steadily rising; distribution of the increase is exceedingly broad; savings, particularly in the middle and lower income groups, are piling up. Demand, instead of drying up, is merely hidden behind war restrictions.

### existing house shortage

3. This demand for housing is made more pressing by the increasing shortage of housing. The last decade saw

only two non-farm houses built for each five net additional families. There were few replacements of old houses, and the census of 1940 showed that the general condition of the existing stock was even worse than had been revealed by the Real Property Inventories of 1934.

### restraints broken

4. Although the typical small housebuilder of the past may be forced from the picture, the war housing program has at least succeeded in keeping a number of fairly large organizations active. Pressure for speed and economy has served alike to break down old restraints and to develop new techniques. War-time housebuilders, experienced in mechanized mass housing operations, will be ready and eager to carry on their activity in the post-war period.

### new materials available

5. Competition for peacetime markets among producers of war materials should not only create favorable prices but also make many new materials and new uses of materials available to housebuilding. Lumber, steel, aluminum, magnesium and plastics should all figure in this drive.

Thus it appears likely that we shall enter the post-war era with a very strong demand for new houses and the beginnings of an industry capable of meeting the demand.

### forecasting difficult

Forecasting the housing market in normal times is difficult enough. Under a war economy it becomes a job for the foolhardy. Yet on the basis of certain assumptions we may at least glimpse possibilities. We may assume a fairly high national income at the close of the war—current estimates place it somewhere near \$110 billion at 1940 prices. We may perhaps safely assume that the relationship of housebuilding to national income might be similar to prosperous years in the past—in 1925, the relationship was 7.2 per cent, and for the complete building

cycle (1919-1935) the average was 4.5 per cent.

On this basis it may be estimated that post-war house production upwards of \$5 billion to, say, \$6.5 billion is well within possibility. How such an expenditure would be divided among the various classes of residential construction is again a question on which estimates may widely vary. Assuming an average cost (exclusive of land) of \$3,400 for a non-farm dwelling unit, we might (at the \$6.5 billion figure) produce over 1.3 million new non-farm houses and still have nearly \$2 billion left for new farm houses, housing repairs and alterations and miscellaneous residential construction.

### the expensive house

Assuming such a program to be possible, what sort of housing is likely to be produced? Part, obviously, will be for higher-income families,—typical custom or semi-custom built houses. Considering effects of wartime suppression of building, accumulation of savings and increase in incomes, there is likely to be a great deal of this kind of building. The \$7,000 to \$10,000 or \$12,000 house will probably be much in demand.

### and low-cost houses

But this class of dwelling cannot meet all post-war demands. Then, as previously, the bulk of the potential market will come from families in the lower three-quarters of the income scale, who have never been adequately served with new dwellings. And it is this group that stands to benefit most from technical progress during the war period.

The war housing program has demonstrated that simple, comfortable, attractive houses can be built, even under conditions created by existing shortages, at prices around \$4,000 (and sometimes less) a unit, including a reasonable allowance for the land. It has demonstrated that these houses are susceptible to mass production under highly mechanized methods of operation.

The large building organ-

ization is even more characteristic of housebuilding under war conditions. Projects of 500 to 1,000 units are a commonplace, while developments of 2,000, 3,000 and even 5,000 units have been carried on as single operations. And the factory seems to have been firmly established as an instrument of house production. While, in terms of size of organization, housebuilding may not yet have become big business, the war has certainly made it a bigger business than it was during the Thirties, when average production per builder was something around four houses a year.

### rental housing handicapped

These industrial changes are likely to result in the capture and extension of the market for low priced dwellings by the large producer. It is not unlikely that an important part of the demand for more expensive houses—ranging to \$12,000 at the 1940 price level—may gradually be met in the same way.

At the same time, rental housing will undoubtedly continue to be handicapped by the same difficulties that, in spite of a great increase in rental demand, held it back during the Thirties. The almost certain continuance of rent restrictions into the post-war years may add to the difficulties of producing new dwellings on a straight rental basis.

### business not as usual

The war has not only eliminated business-as-usual so far as housebuilding and home finance are concerned; it even promises to carry us technically beyond a point where a return to business-as-we-have-known-it will be possible. New housing construction, privately financed, can play a vital role in the period of post-war readjustment. The greatness of that role and the success with which it can be played will depend upon how well the new problems are analyzed and how thoroughly the needs for new methods and new points of view are anticipated.

## civilian construction

continued from page 1

rial can be used, on or off the site, to supply electricity, water, gas, steam, telephone or sewage disposal.

There is no limit on repair or maintenance work. However, previous requirements for restoring structures damaged by fire, etc., must be met.

The new limits for construction, as established by the amendment, follow:

| Type of construction   | Former limit | Present limit |
|--|--------------|---------------|
| Residential  | \$500        | \$200         |
| Multi-family dwellings   | 500          | 1,000         |
| Agricultural   | 1,000        | 1,000         |
| Industrial   | 5,000        | 5,000         |
| Less essential commercial  | 5,000        | 200           |
| Essential commercial (including highway, sub-surface, utilities) | 5,000        | 1,000         |

## building prices

continued from page 1

other direct costs, plus a margin for operation and profit based on similar transactions occurring from Jan. 1, 1939 to March 31, 1942. The margin has to be supported by documentary evidence.

For lump-sum contracts larger than \$50, prices are to include estimated costs of materials, labor, rentals and other direct costs, plus a similar margin. However, it estimates are below actual costs, the seller may legitimately add either 10 per cent of the total contract or the actual excess over estimates, whichever is smaller. And if actual costs are lower than estimates, the seller cannot retain more than 25 per cent of the difference.

These two latter provisions have caused some protest. Further action is expected.

## permanent lumber control

### wpb establishes new classes of use

Washington—WPB, late in August, set up a system of controls for lumber distribution to replace the temporary "freeze" orders. Principal feature of the system is the division of all softwood lumber purchases into four classes, each of which receives a predetermined priority rating. Classes are:

1. Most urgent — rating AAA, AA-1, or AA-2.

2. Construction of manufacturing plants having specified preference ratings, maintenance and repair of buildings or projects of certain essential government agencies; etc.—rating AA-2X.

3. Lumber ordered for incorporation into specified essential civilian products; for construction of war projects, including housing which has a preference rating under one of the previously issued orders; agricultural and railroad construction, government construction other than buildings; maintenance and repair; etc.—rating A-1-a.

4. Lumber ordered for incorporation into a few civilian products; construction of churches, elevators educational buildings; maintenance and repair of government buildings, preparing for shipment less essential civilian products; replacing stocks sold in this class—rating A-2.

## emergency specifications for steel issued by wpb

WPB has ordered that a manual of specifications governing the use of structural steel for all building construction, financed or approved by governmental agencies on contracts placed after November 9, 1941.

The purpose of the directive is to conserve the supply of structural steel by requiring the use of higher design stresses than are normally used. Thus somewhat lighter sections of beams, and other members entering into the construction of buildings, will be permitted but not to an extent that in any way endangers the safety of the building.

### stresses increased

The allowable stress for beams in flexure has been increased from previous allowances, ranging from 16,000 to 20,000 pounds per square inch to a mandatory 24,000 pounds per square inch. Other savings of steel are effected through the use of continuity in design and welded fabrication.

## allwork in wpb post

Washington—With the resignation of W. Walter Timmis as Chief of WPB's Plumbing and Heating Branch, Ronald Allwork was appointed Acting Chief. Mr. Timmis resigned to join the armed forces.

Mr. Allwork, who studied architecture at Columbia University, gained experience in the heating and plumbing industry when, after several years of practice, he became associated with manufacturers in that industry. Previous to his appointment as Acting Chief of the branch, Mr. Allwork had been first a head of one section, and later, Deputy Chief of the branch.

## new forms for priorities

Beginning September 30, WPB requires that all applications for priorities assistance in construction, or for authorization to begin construction under the "stop - building" order, L-41, must be filed on revised form PD-200. After that date, applications on old PD-200 forms will not be accepted.

## igloos for signal corps

Buckminster Fuller reports that several of his "igloos" have been ordered by the U.S. Army for Signal Corps use. Their design now includes some features of his earlier Dymaxion houses.

## lumber scarce; use masonry!

Producers of brick and other clay products are urged by WPB to gauge production to meet an increased demand for these materials for use in place of lumber.

Ben Alexander, special assistant on lumber in the Office of Industry Operations, called upon all manufacturers of brick, tile, and gypsum board, and on the membership of unions within the industry, to aid in averting "a serious temporary shortage of lumber."

## n. y. votes planning funds

New York—The Board of Estimate of New York City has authorized a \$10,331,555 bond issue for a planning fund to finance studies and surveys for a post-war construction program. In addition to the regular city staff, technical men (including architects) from outside sources are to be employed.

## big buildings to be scrapped in new york

continued from page 1

and the Reconstruction Finance Corporation.

The procedure is as follows: the city locates a building for demolition, turns data over to Mr. Moses, and he helps prepare a demolition contract. A wrecking firm and War Materials, Inc., sign it, and WMI pays the demolition cost. This solves a vexatious problem: the fact that tearing down a building for scrap is much more expensive than the worth of the building or of the scrap.

In New York, Mr. Moses has cast scrappy eyes at 9,000

"old-law" tenements and big buildings which operate at a loss or have had no income for years—all types of buildings which are eaten up by taxes.

Publicity on this phase of the salvage program followed by two months a similar suggestion made to *Pencil Points* and to R. W. Wolcott, of the American Industrial Salvage Committee, by George Herrick, prominent technical writer.

Not an architect in the city will quibble over this program, except that it removes only the financially insolvent buildings.

## simplified specification

### formula devised by bureau of standards

The National Bureau of Standards of the Department of Commerce has issued a report on development of simplified specifications for building construction. The report, BMS8, "Building Materials and Structures," embodies recommendations of the Subcommittee on Specifications of the Central Housing Committee.

### for public and private work

Primarily prepared to meet the demand for short and uniform specifications for Government work, the method described is equally applicable to private practice.

By means of examples of current practice and possible streamlined specifications, prepared from a logically developed outline, the report demonstrates ways of saving wordage, time and space while sacrificing no degree of clarity. Copies of the report are available from the Supt. of Documents, U. S. Govt. Printing Office, for 10

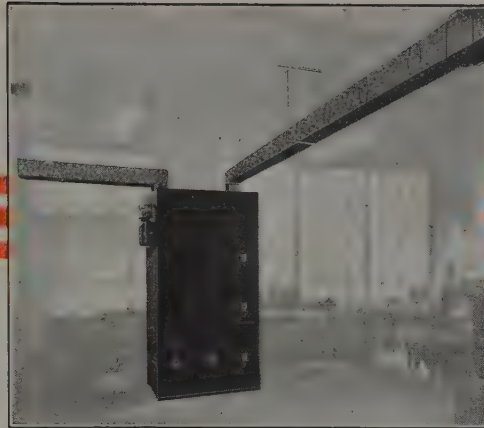
## army-navy "e"

Independent Lock Co.—Lockwood Hardware Mfg. Co., Fitchburg, Mass., received the first "E" awarded to a hardware manufacturer.





A part of a "loop" system of Plug-in ⑦ Busduct feeding a battery of automatic screw machines. Low head-room required duct to be mounted against ceiling.



The ⑦ KLAMPSWITCHFUZ Switchboard from which Plug-in ⑦ Busduct in photo at left is fed. Feeder ⑦ Busduct at left runs to an existing distribution center.



Plug-in ⑦ Busduct mounted on edge, with Plug-in Outlets in cover and opposite side, simplifies the conduit layout in this installation with its varied types of machines.

## Clip Minutes - Save Hours!

Minutes clipped from the time required to make machine connections to the power line mean added hours of production.

## ⑦ BUSDUCT

Increases speed of production. This modern, flexible method for the distribution of power and light makes it possible to "move the machine—plug in—go!" at any desired position; for Plug-in ⑦ Busduct provides plug-in openings at 12-inch intervals.

Both Feeder and Plug-in ⑦ Busduct may be taken down and moved to new locations without appreciable loss of material. Extensions may be made readily to existing installations.

⑦ Busduct is designed for 2, 3 and 4-wire feeder systems; 110 volt DC, 575 volt AC, maximum. Plug-in type capacities, 15 to 1,000 amperes; Feeder type, 250 amperes and up.

### Investigate this Modern Method of Electric Distribution

Let the ⑦ Sales-Engineer show you how it may be applied to advantage — whether in new construction or plant modernization. His long experience will be helpful — and he will be glad to consult with you — without obligation. Write for his name and address — or see listing in Sweet's Catalog (Architectural Section or Industrial-Engineering Section), in Thomas' Register or in Electrical Buyers' Reference.

#### Let us send you Bulletin 65

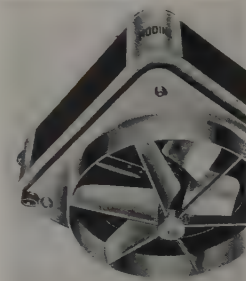
which gives full details of ⑦ Busduct installations, with photographs, diagrams and suggested specifications . . . Frank Adam Electric Company, St. Louis, Mo.



# PRODUCTS PROGRESS

The columns of this section of **NEW PENCIL POINTS** are open to any manufacturer who has a new product which may be of interest to the architectural profession. Manufacturers who wish to have their product shown in this section should send a glossy photograph, together with information covering the function, characteristics, installation, cost of the product, and a description of what A.I.A. literature is available on the product.

## STEEL-CONDENSER UNIT HEATERS Modine Mfg. Co., Racine, Wis.



Use of unit heaters with condensers containing copper is restricted to shipboard use and for use outside the continental U. S. The new Modine line, designated as "Style I/S," includes both horizontal and vertical delivery types. Special precautions reduce the hazard of corrosion. Heaters may be purchased by the military or for essential industries under WPB Order L-107.

## PROTECTION FOR DOORWAYS Kinnear Mfg. Co., Columbus, Ohio



Method of barricading doorway without obstructing air, light or view. Steel rounds of 5/16" diameter assembled with steel links inside heavy steel frame, provide sturdy and neat appearance.

Pattern after the ing g which compan been n facturin large i opening a numbe years, d new sw grille o

## PROJECTED WOOD SASH Rolscreen Co., Pella, Iowa



Features are the use of white pine for the frame and sash, the treatment with toxic and water repellent. The glass sizes have been reduced to maintain the overall to

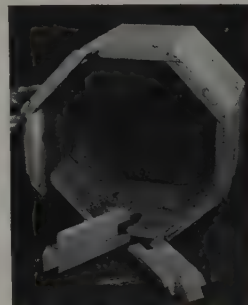
standard steel opening sizes. Details and a complete table of sizes are available on request from the manufacturer. Hardware for projecting the sash is treated to forestall rusting and is factory installed.

## INTERLOCKING SHINGLE Ruberoid Co., New York



Known as "Tite-On," this shingle is nailed to the roof and is further secured by being locked at four points with the adjacent shingles, resulting, according to Ruberoid, in shingles which cannot slip apart or blow up or off. Three color blends are shown in the folder describing this shingle, in which the appearance is enhanced by accentuating the wood grain.

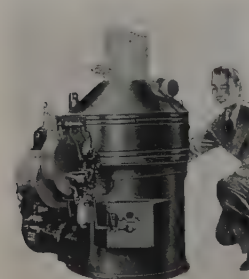
## METAL-LESS DRAIN PIPE Armco Products, Middletown, Ohio



Intend outlast to 10 period which the p defense u ects are built, th requir steel b nails or reinforce any kind. The emergency made of a series of stout, she ments, given an octagonal or polygonal shape. Units are made into lengths of 12 ft more which are then field assem

Intend outlast to 10 period which the p defense u ects are built, th requir steel b nails or reinforce

## COMPACT STEAM GENERATOR Vapor Car Heating Co., Chicago



For heating and processing requirements of industrial plants, airports, hospitals, laundries and hotels where capacity, light weight, minimum space

requirements are imperative. Generator produces steam from a cold start to pressures up to 300 pounds in less than 2 minutes. Units are available to evaporate 500, 1000, 1500, 2000, 3000 pounds per hour.

## WOOD FLUORESCENT REFLECTOR Guth Co. Washington Blvd. St. Louis



Available for immediate shipment, the new "Maze-Lite" is made for two 40-watt, three 40-watt, and two 100-watt fluorescent lamps. The pressed wood reflector accepts the durable "300° white" finish which produces indoor daylight. Reflectors are light in weight, have a simplified arrangement for the starters, and have bump-proof end plates for an added protection.

## NON-METALLIC CONVECTORS The Trane Co., LaCrosse, Wis.



Except the this convect made of non metallic Top a pane made of fibre Support memb the corners are of hard wood. types are available—one for w pension, one of the free-standing type (shown). Circular d grilles are punched in the slopi of both cabinets.

Except the this convect made of non metallic Top a pane made of fibre Support memb






*Designed by Morris Lapidus, this simple, businesslike showroom of Eimer & Amend Drug Supply Company demonstrates the use of Armstrong's Linowall on walls and columns. In the view below, note special designs.*

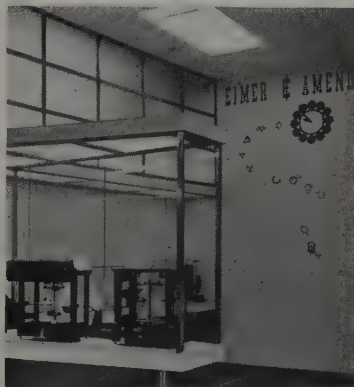
ARCHITECTS who have used Linowall know that it provides the style and color so essential in a modern wall covering. They have learned that it is a workable material—versatile and easy to install. And because of its versatility, architects have found this wall covering to be particularly adaptable to remodeling work of all types. That is why you see Armstrong's Linowall, more and more, in modern buildings of the calibre of this handsome Eimer & Amend showroom, designed by Morris Lapidus.

Equally important, it is easy to keep walls attractive when they are covered with this linoleum-like wall covering. For even in the busiest offices, showrooms, restaurants, and institutions, a damp cloth is all that's needed. No costly, troublesome refinishing is required.

So, whether your next job is new construction or remodeling, it will pay you to investigate the many advantages of Linowall—which is still readily available in a wide assortment of colors. For full details, see "Sweet's," or write for our color-

illustrated, file-sized booklet. Address Armstrong Cork Company, Floor Division, 1232 State Street, Lancaster, Penna. 

*Linowall can be inset with wood, metal, glass, plastics, or carved linoleum, and at moderate cost. The interesting design shown on the wall below was achieved with linoleum.*



**ARMSTRONG'S LINOWALL**

MADE BY THE MAKERS OF ARMSTRONG'S LINOLEUM AND RESILIENT TILE FLOORS

# AT PIEDMONT SHIRT CO., TOO —NORTHERN HARD Maple



New plant of the Piedmont Shirt Co., Greenville, S. C.—floored with MFMA Northern Hard Maple.

*"Takes on a Smoother  
Appearance with use"*

*says*

**H. S. ABRAMS, Supt.**

"Since flooring our building (the home of nationally-advertised Wings Shirts) we wish to express our deepest satisfaction with the Northern Maple stock which we used," says Mr. H. S. Abrams. . . . "We have noticed from month to month that the flooring takes on a better and smoother appearance with use. We are particularly pleased with the hardness of the floor and the fact that there is no possible chance of it splintering. This was a constant source of trouble to us in our old building."

In mills everywhere, Hard Maple's daily satisfaction and eventual economy have been proved through the years. When you build, remodel, or re-floor, don't fail to investigate MFMA (trade-marked, guaranteed) Northern Hard Maple.

**MAPLE FLOORING MANUFACTURERS ASSOCIATION  
1785 McCormick Building, Chicago, Illinois**

*Write for folder on heavy-duty finishes for old or new Maple floors,  
which further reduce cleaning costs. See Sweet's, Sec. 11/82.*



## NAIL-LESS SIDING SHINGLE.

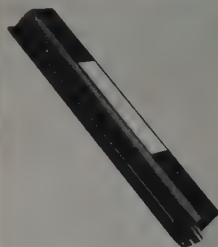
Johns-Manville, 22 E. 40th St., New York.



This new asbestos siding shingle requires no face nails. (A recent WPB order eliminated use of plated bronze face nails usually employed in applying asbestos siding shingles.) The shingle is 12 x 24" in size and is laid with 3" head lap and no side lap. Half-size shingles are packed in the bundles for use at the corner. All shingles have three head-ends. In laying, joints are protected by use of felt backer strips.

## FLUORESCENT LAMP BALLAST.

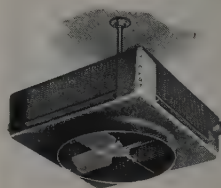
General Electric Company, Schenectady, N. Y.



This new 4-lamp ballast for fluorescent lighting will operate four 100-watt lamps over a voltage range of 250-280 volts and is applicable to circuits in 265/460-volt-Y-class, thus reducing copper requirements in plant lighting circuits. The ballast opens the way to simplified fluorescent fixtures that are less, weigh less, and use much smaller quantities of critical materials, per, iron, steel, aluminum.

## WARTIME UNIT HEATER.

C. A. Dunham Co., 450 E. Ohio St., Chicago.



The "Victory Line" of unit heaters comes in a wide variety of types and sizes, including the peller fan types for horizontal and vertical discharges, in sizes from 65 sq. ft. EDR to 2,000 sq. ft. and centrifugal blower types in small cabinet models and large industrial types from 75 sq. ft. EDR to over 4,000. Heater elements consist of steel tubes welded to steel headers. Show is the blower type, vertical discharge unit.

## WOOD BATHROOM CABINETS.

Miami Cabinet Division, Middletown, Ohio.



Designed to conserve steel, Miami's line of wartime wood cabinets, made of kiln-dried hardwood, with joints double locked, glued, and tenoned; the back of moisture-proof composition board; steel mirror frame mirrors of double-strength quality. Equipment consists of glass shelves, bar-type door and stainless steel door strike. Model 103W, shown, measures 13" x 25 1/4" overall.



# FACTORY-FINISHED MONOWALL



**avoids delays  
in remodeling,  
yet maintains dec-  
orative freedom**

**B**ECAUSE Armstrong's Monowall needs no finishing after installation, remodeling projects can be spared many delays and difficulties where labor shortages exist. Yet real freedom in design is maintained, for Monowall's wide range of factory-applied colorings offer the solution to practically any decorative problem.

These colorings include smart plain tones as well as the authentic wood, marble, and tile effects which many clients favor. Armstrong also furnishes channels and moldings of plastic, wood, metal, or hardboard for extra decorative treatment.

Armstrong's Monowall has a mirror-smooth surface which is as durable as it is smart . . . as easy-to-clean (and keep clean) as it is colorful. Its large board sizes (up to 4' x 12') permit quick installation right over old plaster, or other wall and ceiling materials, with a minimum of seams or joints. Most rooms can be completed in a day, even by one man working alone. And because Monowall is light in weight, there's no need to provide structural reinforcement.

See *Sweet's* and write today for a sample of this modern wall and ceiling material. Armstrong Cork Co., Building Materials Division, 911 Concord St., Lancaster, Pennsylvania.



SPLASHPROOF MONOWALL brightened up this bathroom in Philadelphia. The gleaming, spotless walls are Chinese Blue No. 41 and Persian Blue No. 81. Simplest care will keep them sparkling indefinitely.

## ARMSTRONG'S MONOWALL

TEMSEAL SHEATHING • TEMLOK LATH • TEMLOK DE LUXE INTERIOR FINISH



## TO HELP CLOSE THIS DOOR FOREVER



Small parts for tanks, planes, guns, ships—now stream from the machines that formerly made LCN Door Closers for the doors of peace. And the men at these machines, trained for years in the precision methods which are standard at LCN, enabled us to go all-out on this vital job. Yours for Victory now, and yours for even better door closers when Victory is won. LCN, Chicago, Illinois.



*100% Production for*



**ICTORY**



# MAKE THIS TEST - *Prove* **BRIXMENT** is BEST!



**1** Above: A cylinder of Brixment mortar (left) and a cylinder of mortar made with 50-50 cement and lime mortar (right). Both specimens were made at the same time, and subjected to exactly the same treatment. After curing for 30 days,  $\frac{1}{4}$ " of water



was put into the tray and the cylinders were alternately frozen and thawed 15 times. Note in photo 2 that Brixment mortar remains intact, whereas the other mortar has crumbled badly. This simple test can be made in any ice-manufacturing plant.

## **BRIXMENT Makes More DURABLE Mortar!**

FOR permanent strength and beauty, mortar must be *durable*—must be able to withstand the alternate freezing and thawing to which it is subjected many times each winter.

Brixment mortar *is more durable*. This greater durability is due partly to the strength and soundness of Brixment mortar, and partly to the fact that Brixment is waterproofed during manufacture. This waterproofing helps prevent the mortar from becoming saturated—therefore protects it from the destructive action of freezing and thawing.

Walls built with Brixment mortar therefore *retain* their original strength and appearance. Even in

parapet walls and chimneys, where exposure is particularly severe, Brixment mortar will almost never require re-pointing.



# **BRIXMENT** **For Mortar and Stucco**

Louisville Cement Company, Incorporated, Louisville, Kentucky. Cement Manufacturers for Over a Century.

**MORE THAN 60,000 ROOF-COMMUNICATED FIRES A YEAR!\***



## **Make sure your buildings have the fire protection of ASBESTOS!**

**T**ODAY, no plant operator can take chances with fire. This is particularly true of fire caused by embers from a nearby fire which fall on an inflammable type of roof.

The hazard of roof-communicated fires can be minimized by applying a Johns-Manville ASBESTOS Built-Up Roof. That's a fact that's backed up by hundreds of instances in our files in which just such a roof saved buildings from almost certain destruction by outside fires.

**THE REASONS ARE LOGICAL.** The felts used in Johns-Manville Smooth-Surfaced Roofs are ASBESTOS Felts . . . they cannot burn. Because this mineral has the durability of stone, Johns-Manville Asbestos Roofs provide other important advantages as well. They safely withstand long exposure to sun, rain and weather. They are rotproof . . . need no peri-

odic coating. Result: a built-up roof that's as maintenance-free and fire-safe as it can be made!

Before you specify built-up roofing for any type of building, investigate the advantages of these *safer* roofs. For details see our catalog in Sweet's, or write Johns-Manville, 22 East 40th Street, New York, N. Y.

**Johns-Manville**  
*Asbestos*  
**Built-Up Roofs**



\*The National Fire Protection Association has estimated that in 1940, 62,000 fires were caused by sparks falling on inflammable roofs.



# PLASTIC

## PUSH & KICK PLATES of FORMICA

*Save*  
**SCARCE  
METALS**

*In color  
and black*

**T**O protect the surfaces of doors that are subject to severe wear and frequent opening and closing Formica is able to offer plastic push and kick plates with many important advantages.

The colors available blend readily with most door surfaces. The colors have depth. The material is hard, non-porous and does not absorb stains or react chemically with any ordinary liquid. Hence the surface remains unchanged in color and appearance after long use.

The material is non metallic, but it is not brittle and will not be cracked by sharp impact. The smooth, hard surface is easily cleaned by wiping with a damp rag. It requires much less polishing than most materials previously used for the purpose.

The plates in four standard colors shown are sold by leading dealers in builders' hardware.

- ★ EASY TO CLEAN
- ★ STABLE IN COLOR
- ★ WON'T SPOT OR STAIN
- ★ WON'T CHIP OR CRACK
- ★ THEY STAND UP



# *In many* **HANDSOME MODERN BUILDINGS**

**Y**OU will find doors with Formica push and kick plates, or with surfaces completely covered with Formica, in many handsome modern buildings, railway, bus, and train terminals, public buildings in Washington, theaters, restaurants, hotels.

The material has been thoroughly tested and it has given long and satisfactory service over the years—maintaining its color, preserving its surface; serving, always, with a minimum of polishing and maintenance—important, nowadays, when labor is so scarce.

No location is too tough. The plates have been used on the swinging doors of railway stations where literally thousands of people go through each day, or on the swinging doors between kitchens and dining rooms in large restaurants where food servers are constantly opening and closing the doors.

These standard plates, made in four colors and black, are  $\frac{1}{8}$  of an inch thick, have beveled edges, and are attached to door surfaces with screws inserted in counter sunk screw holes.

Your dealer in builders' hardware can provide them.

**THE FORMICA INSULATION CO.**  
4613 Spring Grove Ave., Cincinnati, O.



*for Building Purposes*







GENERAL  
OFFICES:  
Charles Bruning  
Company,  
Chicago

## In Defense Plant Office Areas . . . Tile-Text *can Take it!*

Attractive Tile-Text installation, Reception Room, Charles Bruning Company



Our constant objective is to furnish the architect with an honest, steadily improved product that will enable him to design architecturally correct floors which can be installed and maintained properly at minimum cost.

War plants throughout the country are finding Tile-Text asphalt tile flooring ideal for factory office areas. Tile-Text is made from non-critical asphalt and asbestos—it's a rugged, tough, wear-resisting tile with a performance record longer than any other similar material. Tile-Text is highly fire-resistant, is unaffected by moisture, and is exceptionally easy to clean and keep clean.

Offices, restrooms, storerooms, recreation areas, and dispensaries are a few of the many floor areas where Tile-Text is giving trouble-free service today in American war plants. It is quickly and easily installed by approved, competent floor contractors located in all principal cities and towns. For specification data and complete color charts, see Sweets Catalog File Page 11/58, or ask us for a copy of "Floors That Endure" which gives you the complete Tile-Text story.

### The TILE-TEXT Company

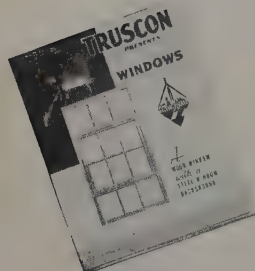
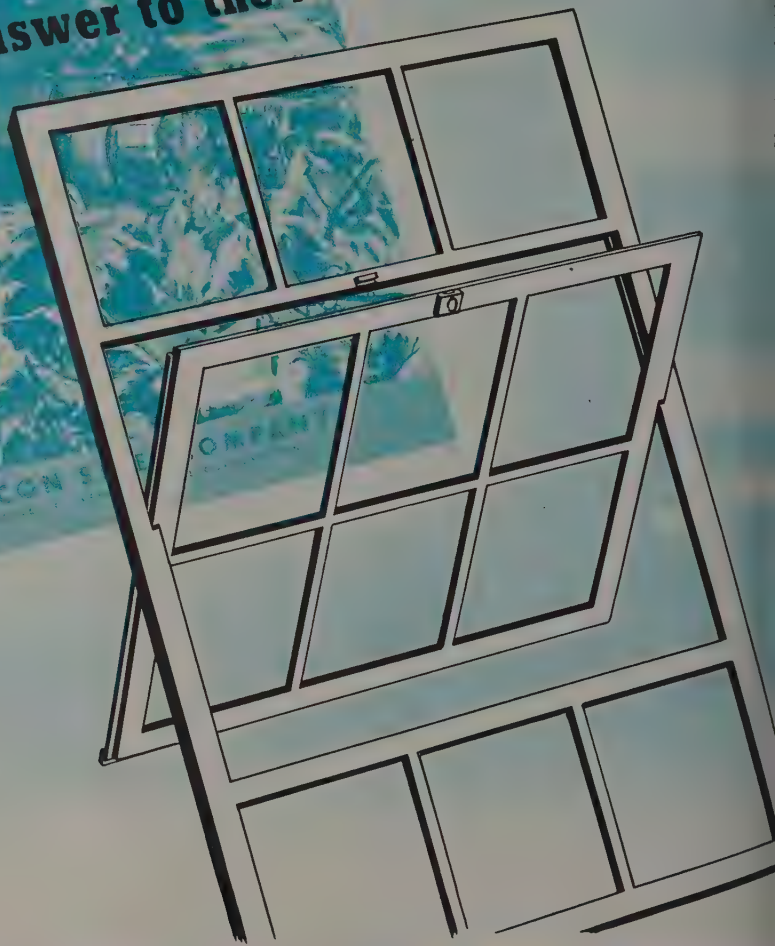
101 Park Avenue, New York • Chicago Heights, Illinois

THIS IS THE FIFTH OF A SERIES DEALING WITH THE PART OF TILE-TEXT IN THE DEFENSE PROGRAM

Reproduction of the Truscon FORTUNE advertisement  
for October, 1942, emphasizing critical nature of steel.

You wanted  
**STEEL WINDOWS**  
but the Army needed  
**TANKS!**

**TRUSCON DURA-WAR WOOD WINDOWS**  
are the Answer to the Nation's Need for Steel



Write today  
for illustrated catalog  
on Truscon DURA-  
WAR Wood Windows.

## The Wood Window with a Steel Window Background

The jobs on your boards, laid out for steel windows, can be converted easily and with no loss in time, to Dura-War Wood Windows.

The types and sizes of DURA-WAR WOOD Windows parallel the standard line of Truscon horizontally pivoted steel windows.

There is no compromise with quality. Each DURA-WAR window is manufactured to our specifications by a reliable wood work manufacturer and subjected to close inspection.

Trained window specialists are available and upon request will provide complete engineering information on DURA-WAR Wood Windows, including costs for erecting and glazing.

**TRUSCON STEEL COMPANY • Youngstown, OH**  
Subsidiary of Republic Steel Corporation

NOTE: Residential Double Hung Steel Windows and Residence Steel Casements are available for use in homes located in defense areas. The War Production Board has approved their use until existing inventories are entirely liquidated.



# THE GREAT PURPOSE

PEOPLE throughout the United Nations are united by their strong immediate will to fight through to Victory. This common purpose binds them firmly together for the time being and will be an effectual bond until the goal is reached.

But we would be bankrupt indeed if we had no further purpose. Thoughtful men in all countries are looking beyond the War to the years succeeding it. They are formulating objectives strong enough to hold humanity together and to give it courage to strive towards the greater goals of general human freedom and welfare.

Sir Ernest Simon, Deputy Chairman of the Central Council of the Ministry of Works and Planning for Britain, is now in this country to establish contacts for the exchange of information between American and British officials concerned with planning for the future. The major interest to which he has been devoting his time and thought at home is the "30-year plan" for the Rebuilding of Britain after Victory. We had the pleasure of interviewing Sir Ernest the other day and were greatly impressed with his deep determination that the world of tomorrow in Britain shall be a better world than has ever existed for mankind.

He handed us a statement prepared shortly before he left England. We quote several inspiring paragraphs. Says Sir Ernest:

We have to plan and build our cities on a scale never attempted before: to build millions of good and well-planned houses, and fine schools, public buildings and factories; to build great national roads and improve railways and canals; to replan the countryside, and to provide national parks for rest and recreation. It has been well said: 'A city ought to be a fit setting for a civilised life.' It should have 'no squalor nor shameful hidden parts, and very little unnecessary ugliness, whether industrial or otherwise.'

In order to succeed in planning and carrying out the actual rebuilding of Britain, three conditions are necessary. We must make our plans now, so as to be ready at the end of the war; we must get enough builders, so as to be able to begin building fast and well at the appropriate time; and we must provide the necessary money, drive and enthusiasm to keep going hard and steadily throughout a thirty years' campaign for the building of a new Britain. In this connection, our experience after the last war should prove valuable for the future. At that time there was no town planning worth speaking of, and there were not nearly enough builders. The result was disaster: there were booms and slumps, houses were excessively costly, and there was a great deal of unemployment among building workers. This time we must not make the same mistakes.

To achieve this, there must be active national leadership. The whole thirty-year plan is so great that only the vigorous leadership of the Prime Minister, wholeheartedly supported by the heads of all political parties, can be enough. The Rebuilding of Britain must be a great national aim, far above party and imbued with enthusiasm comparable with our pursuit of victory. The people must be inspired with the conviction that a generation devoted to the Rebuilding of Britain must make up for the failure of the previous generation, whose efforts were thwarted by two world wars, and that this must be a magnificent beginning of a new period — of a nobler and finer civilisation.

"Here, I think, is where we can learn a lesson from Moscow. Five years ago I spent a month in Moscow, studying the great plan of 1931 for the total rebuilding of the city in ten years. I saw tremendous works being undertaken: the great Moscow-Volga Canal, eleven new bridges over the river, embankments, boulevards, buildings of every kind. I talked to planners, architects and builders; I saw the champion Stakhanovite bricklayer laying bricks at a breath-taking speed. I have never met a group of men so full of energy and enthusiasm. They felt they were tackling a great task, wholeheartedly backed up by public opinion and by the national leaders; they told me that Stalin himself took a keen personal interest in their work. They would, I am confident, if peace had continued, have made Moscow the best planned and finest capital in the world. Their splendid team work was a lesson which showed how Russians can work for a great end. It goes far to explain the almost miraculous achievements of their army to-day.

"I have endeavoured to show the task before us. We are now before the final decision. Are we going to drift and leave things to chance, or are we going to plan with courage and determination? Are we going to use private enterprise in the right way to push forward vigorously in accordance with a great national plan? And above all, are we grimly determined to carry the plan through no matter what the price? I believe that the public conscience is fully aroused, and that we intend to plan boldly and well. I also believe that the people of Britain intend to see that the plan is carried through to a successful end, and that whatever it costs, every child born in this country shall have a fair chance of growing up fit and strong and of making the most of its natural abilities. I have no doubt whatever that we shall within a generation make Britain a country of lovely, healthy and well-planned cities, with a pleasant and comfortable home for every family."

Truly a great purpose! Can America be satisfied to do less?—K. R.

# WHAT'S IN A NAME?

The contest for the selection of an appropriate name for THE NEW PENCIL POINTS was judged on Friday, September 25th. The name selected by the judges was PLAN. The winner of the first and only prize—a \$500 War Bond—was Harry J. Nichols, of 33 North Grant Avenue, Columbus, Ohio.

There were 344 entries, out of which 26, including the winner, suggested the name PLAN. This made it necessary to base the award on the excellence of the reasons advanced by the contestants for the selection. After a great deal of debate and discussion, made necessary by the fact that there were a number of excellent essays, the winning one was finally chosen. It had the merit of being logically, directly, and forcefully stated in terms that anyone could quickly understand.

We regret that the terms of the contest limited the prizes to one, since we feel that the others who suggested the name PLAN showed imagination and perception deserving of reward. As things stand, however, we can only congratulate them for coming so close and make a small gesture of gratitude by extending their subscriptions for the new magazine for five years.

The widespread geographical distribution of the contestants suggesting the name PLAN indicates an equally widespread understanding of the nature of our purpose. It is significant that the idea occurred simultaneously to men scattered throughout the whole United States and even beyond its Continental borders. The names of these contestants are listed on this page and we are sure that each of them will feel a special personal interest in following our progress through the months and years to come.

Mr. Nichols' winning essay is reproduced herewith:

**PLAN** is the name suggested for THE NEW PENCIL POINTS because—

1. It is short, interesting, quickly recognized and respected as a significant word.
2. It expresses the policy and the tempo of your new editorial approach.
3. The word "PLAN," alone, will be one of the most important words in American usage during the remainder of the war period—and even more important in the post-war period. The need for planning is now, and will be more acute than at any time in our national history.
4. It is an architect's word—the one most important word in his vocabulary—the word he uses most—the word that most completely describes his place in America's social, cultural and economic patterns.
5. It will catch, and hold, the fancy of your readers and their clients.
6. It is modern, terse, active, alive and prophetic.
7. It will lend itself admirably to interesting cover treatment.

## JURY OF AWARD:

Ralph Reinhold, Philip H. Hubbard, Kenneth Reid, Charles Magruder, Don Gra

Bill Atkinson  
Syracuse, N. Y.

William B. Bartlett, Jr.  
Providence, R. I.

Bill Bidlack  
Muskegon, Mich.

Arthur B. Brand  
Rockford, Ill.

James R. Britton  
Columbus, Ga.

Sol Wm. Cohen  
Norfolk, Va.

Charles H. Coogan  
Washington, D. C.

George Dudley  
Washington, D. C.

Philip Clark Fisk  
Honolulu, Hawaii

J. F. Frazier  
Detroit, Mich.

Max Reder Horwitz  
Chicago, Ill.

Leonard V. Huber  
New Orleans, La.

Louis E. Korn  
Los Angeles, Calif.

Thomas W. Mackesey  
Ithaca, N. Y.

Walter F. Marten  
Charleston, W. Va.

Edward Allen Moulthrop  
Atlanta, Ga.

Chester E. Nager  
Austin, Texas

HARRY J. NICHOLS  
Columbus, Ohio

Robert Peas  
Cleveland, Ohio

Alfred D. Reid  
Pittsburgh, Pa.

William M. Rice  
Tulsa, Okla.

Joseph H. Saunders, Jr.  
Alexandria, Va.

Francis S. Swale  
Yonkers, N. Y.

E. W. Thrift  
Winnipeg, Canada

Taina Waisman  
Brooklyn, N. Y.

Mary Stuart Wilson  
Seattle, Wash.



# TORE FRONTS OF TOMORROW

## NEW PENCIL POINTS— KAWNEER COMPETITION

ized by Reinhold Publishing Corporation, publishers  
New Pencil Points, 330 West 42nd Street, New York.  
ed by The Kawneer Company, Niles, Mich.  
ted by William Lescaze, A.I.A., professional adviser;  
enneth Reid, A.I.A., assistant professional adviser.

# 1943

**AWARDS.** Reinhold Publishing Corporation will pay immediately after the Judgment the following prizes in cash for the best designs.

|  |                 |
|--|-----------------|
| <b>FIRST PRIZE . . . . .</b>                 | <b>\$ 1,000</b> |
| <b>SECOND PRIZE . . . . .</b>                | <b>500</b>      |
| <b>THIRD PRIZE . . . . .</b>                 | <b>250</b>      |
| <b>Five honorable mentions, each . . . .</b> | <b>100</b>      |

The Kawneer Company, in addition, may purchase any of the unpremiated submissions for \$100 each.

### JUDGES

**Frederick Bigger, FAIA . . . . . Washington, D. C.**  
**Morris Ketchum, Jr., AIA . . . . . New York, N. Y.**  
**Samuel E. Lunden, AIA . . . . . Los Angeles, Calif.**  
**Mies van der Rohe, AIA . . . . . Chicago, Ill.**  
**Roland A. Wank, AIA . . . . . Knoxville, Tenn.**

Reinhold Publishing Corporation, The Kawneer Company, and the Competitors agree that the Judges' decision shall be final.

All architects, designers, draftsmen, engineers, and students are eligible to compete, with the exception of employees of The Kawneer Company and Reinhold Publishing Corporation.

Under a ruling by the AIA Committee on Competitions, Institute members are authorized to enter this competition.


Competition closes at 5 P.M., January 4, 1943.

# PROBLEM

## GENERAL

The design of a group of five stores, not in terms of today's knowledge or conditions, but in terms of "after the war" knowledge and conditions. These stores shall be either part of a block in the shopping area of an American city or part of a shopping center in an outlying residential district. They are intended to serve people of low and average incomes, and must be reasonable in cost of both construction and maintenance.

Competitors are urged to base their designs on the use of new as well as of old materials or of new applications of old materials, whichever in their opinion are likely to be most widely used after the war.



COMPETITORS ARE FURTHER URGED TO DEMONSTRATE ORIGINALITY AND IMAGINATION IN THEIR DESIGNS OF THE STORES AND IN THEIR SELECTION OF MATERIALS, WITHOUT ANY REGARD WHATSOEVER TO EXISTING STOCK MOLDINGS AND CONVENTIONAL MATERIALS.

The requirements of the competition are such that in fairness to all competitors no questions should be sent nor will any questions be answered regarding them.

### ALL THE FOLLOWING CONDITIONS ARE MANDATORY

## REQUIREMENTS

The five stores shall be (a) A DRUG STORE; (b) AN APPAREL STORE (either men's or women's apparel, shoes, hats, or accessories); (c) A GENERAL MERCHANDISE STORE (such as a small chain department store); (d) A RESTAURANT; (e) A FOOD STORE selling groceries, meats, etc.

The five stores are located on the North side of an East-West street, on level ground. The drug store is on the East corner of the store block, the other stores are adjoining it in any sequence the competitors determine.

Respective frontages are as follows: (a) 30'; (b) 20'; (c) 25'; (d) 25'; (e) 20'. Clear height for all stores is 12'-0". The building of which the five stores are a part is either 1 or 2 stories high. In either case, the height of the store front is not restricted. Show windows shall not extend beyond the building line; signs shall not project more than 3'-0" beyond the building line, nor less than 10'-0" above the sidewalk. Awnings shall not be less than 8'-0" above the sidewalk. The width of the sidewalk is 15'-0".

## DRAWINGS

All drawings shall be undiluted black ink only, except as otherwise indicated. They shall be on stiff white cardboard or on transparent or opaque white paper, mounted. The size of the board shall be 26" x 36". One inch wide clear margin must be provided all around, but without any border line.

The board shall be composed with its short dimension horizontal, and the title—"Store Fronts of Tomorrow, New Pencil Points-Kawneer 1943 Competition"—made of 1/2" high letters at the bottom. No lettering or numerals shall be less than 3/16" high.



# DRAWINGS

1

**PLAN** of the five stores shall be at  $\frac{1}{8}"=1'-0"$  scale. It shall show only the show windows and doors and shall not extend beyond a distance of 25'-0" from the building line into the stores.

2

**TWO ELEVATIONS** shall be at  $\frac{1}{8}"=1'-0"$  scale, one to be a front elevation of the five stores and the other the first 25 feet of the side elevation of the corner store. These elevations shall be in color, in any suitable medium, and shall show cast shadows, one human figure, and one tree.

3

**PERSPECTIVE** of any one of the five stores so laid out that heights may be measured on the center line of that store front, at  $\frac{1}{2}"=1'-0"$  scale. Perspective shall also be in color, with one human figure but without tree.

4

**SECTIONS** of that store illustrated by the perspective shall be at  $3"=1'-0"$  scale. They shall show all relevant details. One is to be a broken vertical section from sidewalk to top of store front and from building line to back of show window, including sash, glass, awning box, transom bar (if any), show window lighting, blocking and structural members; and the other to be a broken horizontal section through show window and door jambs.

All materials must be properly noted on the Sections.

5

**FULL SIZE DETAILS.** One to be at sill to show glass, glass setting, bulkhead and blocking, and also application of facing material. The other(s) to show trim members such as coping, awning box, etc.

All materials must be properly noted on the Full Size Details.

6

**DESCRIPTION.** Competitors are free to choose any and all materials, either from those available today or from those expected to be available in the future. Competitors shall list and describe the materials they select, state their reasons for choosing them, and make any other suitable comment.

This description shall be typed on one page,  $8\frac{1}{2}" \times 11"$ , pasted on the back of the board and shall not exceed 300 words.

No other drawings than those enumerated above will be required in order to be eligible for an award.

**ANONYMITY OF DRAWINGS.** A plain, opaque, sealed envelope containing a slip bearing name, address, and title (architect, designer, draftsman, engineer, or student) of competitors must be secured with two strips of Scotch Tape to the back of each board, where it will remain until the awards have been made. At that time the envelope will be opened by the Professional Adviser in the presence of the Jury.

Each competitor may enter more than one submission either individually or as a member of a group.

**DELIVERY OF DRAWINGS.** In order to make it possible for men in military service to enter the competition it will remain open for three months instead of the usual two. Drawings shall be wrapped flat, and addressed to William Lescaze, Professional Adviser, New Pencil Points-Kawneer 1943 Competition, 330 West 42nd Street, New York, N. Y. No other markings shall be on the wrapper. Packages must be delivered at that address or handed to any post office at any time before, but not later than, 5 P.M. on the evening of

## JANUARY 4, 1943

Drawings submitted in this competition are at the competitor's risk. Reasonable care will be exercised, however, in their handling, safe-keeping, and packaging for return.

**JUDGMENT** will be made January 13th, 14th, 15th, 1943. Announcements of awards will be wired to each winner; each competitor will receive by mail the names of such prize winners. All premiated designs and the full report of the Jury will be published in the February issue of The New Pencil Points.

**AGREEMENT.** All competitors agree that Reinhold Publishing Corporation and The Kawneer Company alone have the right to exhibit or publish any or all submissions; both companies agree to give in such case full and clear credit to each competitor.

All competitors further agree that the submissions winning either prizes or honorable mentions become the property of Reinhold Publishing Corporation. Other submissions shall be returned to their respective authors within a reasonable time, postage and \$50.00 insurance prepaid.



# ADMINISTRATION BUILDING SMITH REYNOLDS AIRPORT

HOWARD LOVEWELL CHENEY, ARCHITECT  
Benjamin Lane Smith, Associate Architect





Situated in the rolling Piedmont Hills of North Carolina is the new Smith Reynolds Airport Administration Building which combines functional lines with the softer influences of southern Colonial architecture. It is of brick construction, painted a shade of soft blue-grey, and has pre-cast white stone trim.



Shown above is the rear or field side of the building. The terrace here (see also detail photo at left) is used for outdoor dining. In the basement (see plans on page 41) are facilities for mechanical equipment and a large classroom for pilot training. A waiting room, office space, kitchen, dining room, and adjoining luncheonette are situated on the first floor. From the two-story waiting room passengers may get an excellent view not only of all field operations but of the rolling countryside as well. On the second floor is the Pilots' Club, paneled with butternut wood. The landscaping work which is still under way has been designed to give the building an appropriate setting. (All photographs were taken by Dermid Maclean)





*West Elevation*



*Longitudinal Section A-A*

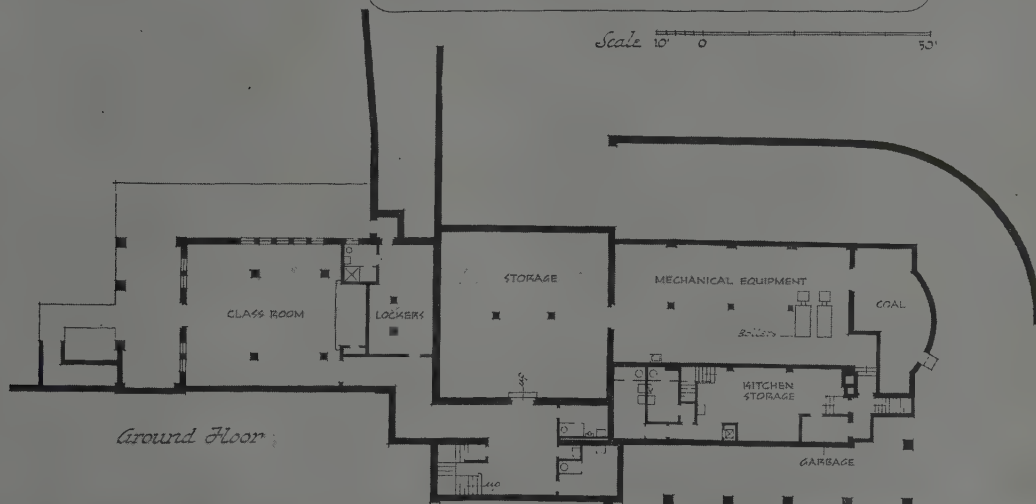
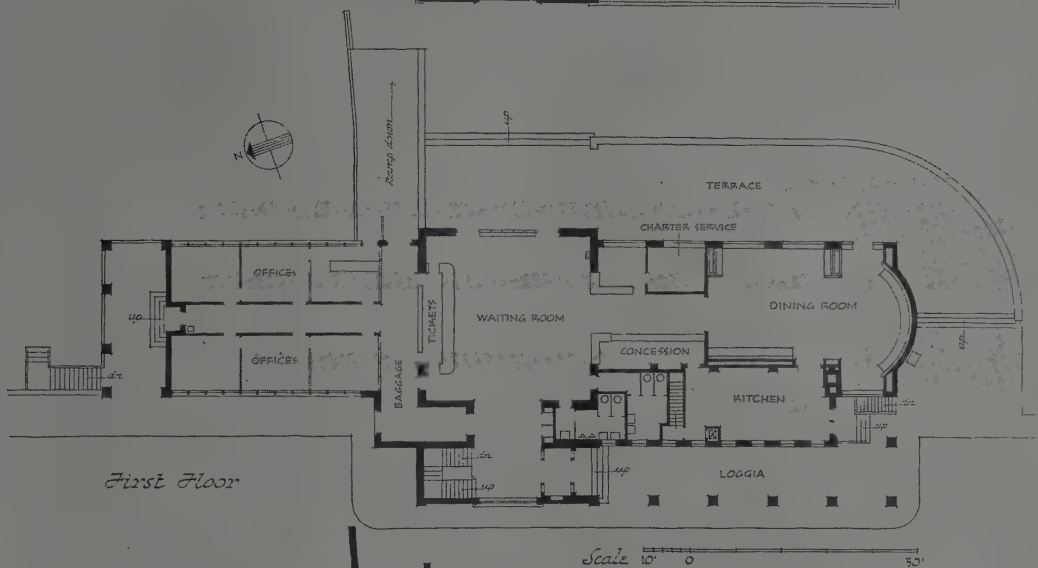
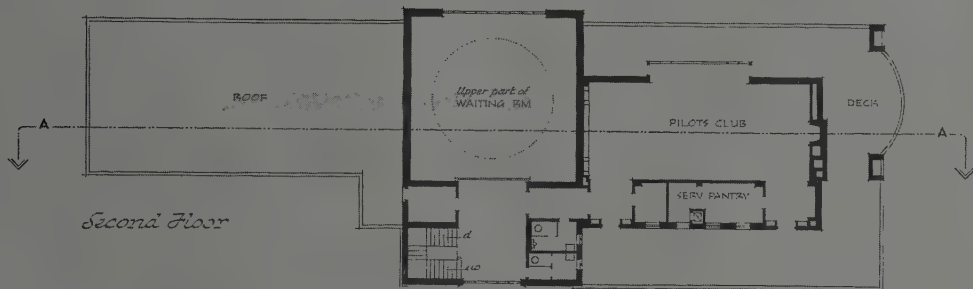
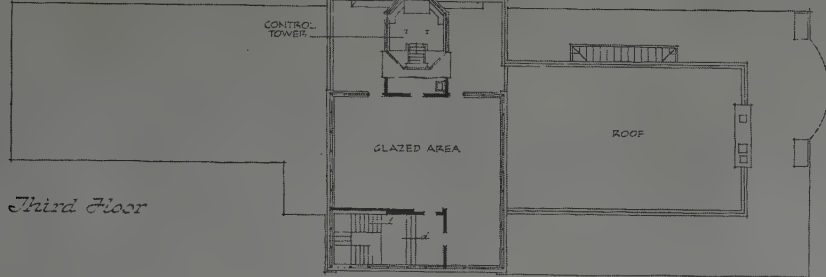
The street side elevation (below) faces a large landscaped park and semi-circular driveway. Designed by Howard Lovewell Cheney, who designed the Washington National Airport, the Smith Reynolds Airport Administration Building may serve as a model for an airport of a medium-sized community





The Control Tower atop the Administration Building overlooks the runways on the airport area





ix offices are used for administration facilities. A basement classroom is provided for pilot training





# MATERIALS AND EQUIPMENT

|                              |  |
|------------------------------|--|
| Footings . . . . .           | REINFORCED CONCRETE  |
| Foundation Walls . . . . .   | REINFORCED CONCRETE  |
| Deck . . . . .               | 6x6" Quarry Tile   |
| Terrace . . . . .            | Flagstone  |
| Wall Construction . . . . .  | COMMON BRICK EXTERIOR; granite sills, entrance steps, coping, base; rubble stone terrace wall with flagstone coping  |
| Floor Construction . . . . . | REINFORCED CONCRETE  |
| Roof . . . . .               | Lead-coated copper; built-up composition   |
| Roof Insulation . . . . .    | ROCK WOOL (control tower)  |
| Sheet Metal . . . . .        | Lead-coated copper gutter and fascia; sheet metal wainscot on control tower  |
| Windows . . . . .            | Steel sash; polished plate glass (exterior); heat-absorbing glass (control tower)  |
| Interior Walls . . . . .     | CLAY WALL UNIT PARTITIONS (kitchen, toilets, locker room); CONCRETE (kitchen storage, boiler and mechanical equipment room, coal storage); PLASTER with butternut wood (Pilots' Club); MARBLE (entrance foyer); all other walls are plaster  |
| Ceilings . . . . .           | ACOUSTICAL TILE (control tower, Pilots' Club, dining room, offices, kitchen); CONCRETE (kitchen storage, boiler and mechanical equipment room, locker room); all others are suspended plaster  |
| Partitions . . . . .         | GLAZED METAL and solid metal (offices); TERRACOTTA (corridors); GLAZED TILE (baggage aisle)  |
| Ornamental Metal . . . . .   | Wrought iron railing; aluminum sill (control tower); white bronze  |
| Floors . . . . .             | Hollow metal or wood; bronze (entrance to foyer and dining room)   |
| Floor Finishes . . . . .     | TERRAZZO (Pilots' Club, dining room, 2nd floor balcony, 3rd floor stair hall, Charter Service outer office, serving pantry, coat room, storage closet, waiting room, entrance vestibule, foyer, fountain service); CEMENT (locker room, janitor's closet, kitchen storage, boiler and mechanical equipment room); LINOLEUM (offices, control tower); QUARRY TILE (kitchen); CERAMIC TILE (toilets); ASPHALT TILE (class room, ground floor lobby, 1st floor corridor, baggage room, 3rd floor glazed area) |

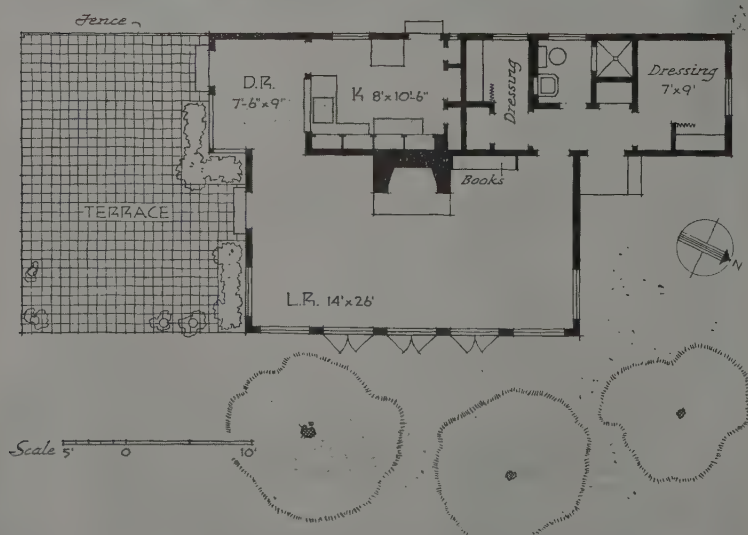


Decorative feature in the Pilots' Club Room on the second floor is a mosaic panel in wood which shows the airport layout and runways. This was executed by Hall Crews, Winston-Salem architect. Above is the Ticket Counter on the first floor. Shown below is a corner of the air-conditioned Dining Room. Across-page is the two-story, marble-trimmed Lobby in which a tablet and bust have been erected to perpetuate the memory of Zachary Smith Reynolds, after whom the airport was officially named. Reynolds was a pioneer aviation enthusiast, flew at the age of sixteen, and was, in his time, the youngest transport pilot in the United States. (Dermid Maclean photos)





## WEEKEND HOUSE DESIGNED BY



SITUATED ATOP a 200-foot cliff overlooking the Pacific is the J. K. Adams residence in Bolinas, California. The house was designed for weekend use and was intended also as a night time shelter. Between the house and the cliff are a number of live oaks, generally covered with moss, so that the view from the house proper is somewhat obscured. The view, therefore, is obtained mostly from a series of terraces along the cliff adjoining the house. There are no bedrooms as such in the house. Instead, dressing rooms are provided for each sex, and in each corner of the Living Room are very large low beds, one for males and one for females. Additionally, guests may sleep out under the trees, which is possible in California. (All photographs were taken by Esther Born)





## EDWARD B. PAGE, ARCHITECT

The kitchen was originally intended as part of the living room but the final solution incorporated a drop front for this inasmuch as a servant was to be brought in on occasions. One of the dressing rooms is also the servant's room on such occasions. The design of the house roughly derived from the fact that "local contractors are barn builders and get entirely confused if trades such as plaster are introduced" points out Mr. Page. The house is a straightforward wood frame job of the type with which these men are most familiar—redwood board and batten exterior, heavy butt redwood shake roof. Exterior sash is painted lemon yellow. Rough sheathing boards are used as interiors. Pine floors have a gymnasium finish, and are stained in bright colors





## BEACH HOUSE

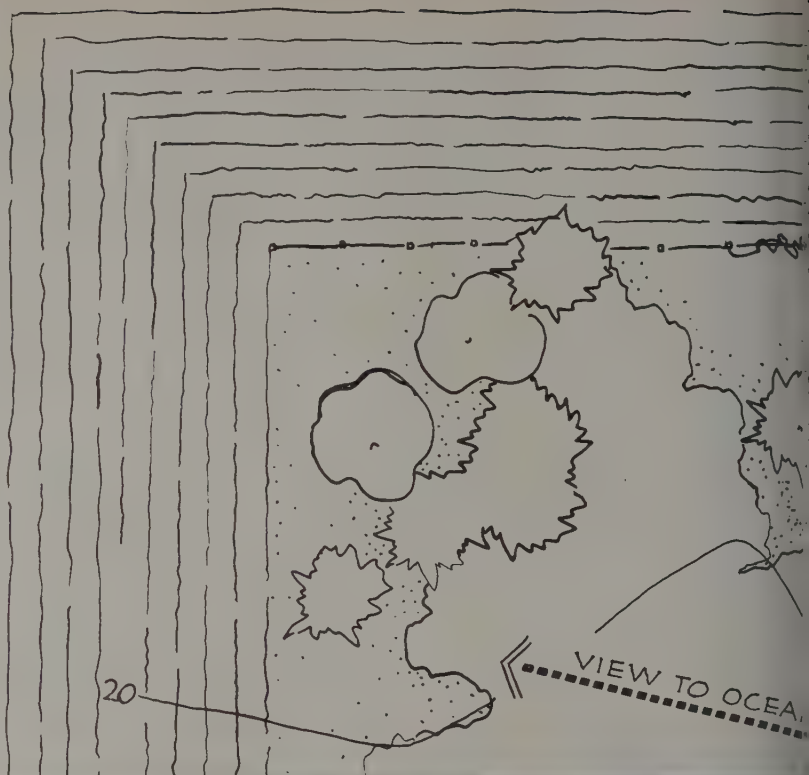
Albert E. Simonson, Architect

A picturesque setting has been provided for the Beach House of Cynthia Wiley, Landscape Architect, at Bridgehampton, Long Island. The house was set in the natural dune growth and the landscaping was blended into the existing flowers and shrubs. The house is of cypress frame construction, with matched siding. Note the simple entrance treatment across-page. A. W. Topping, of Topping & Griffing, Bridgehampton, was the builder. (All photographs by Richard Garrison)



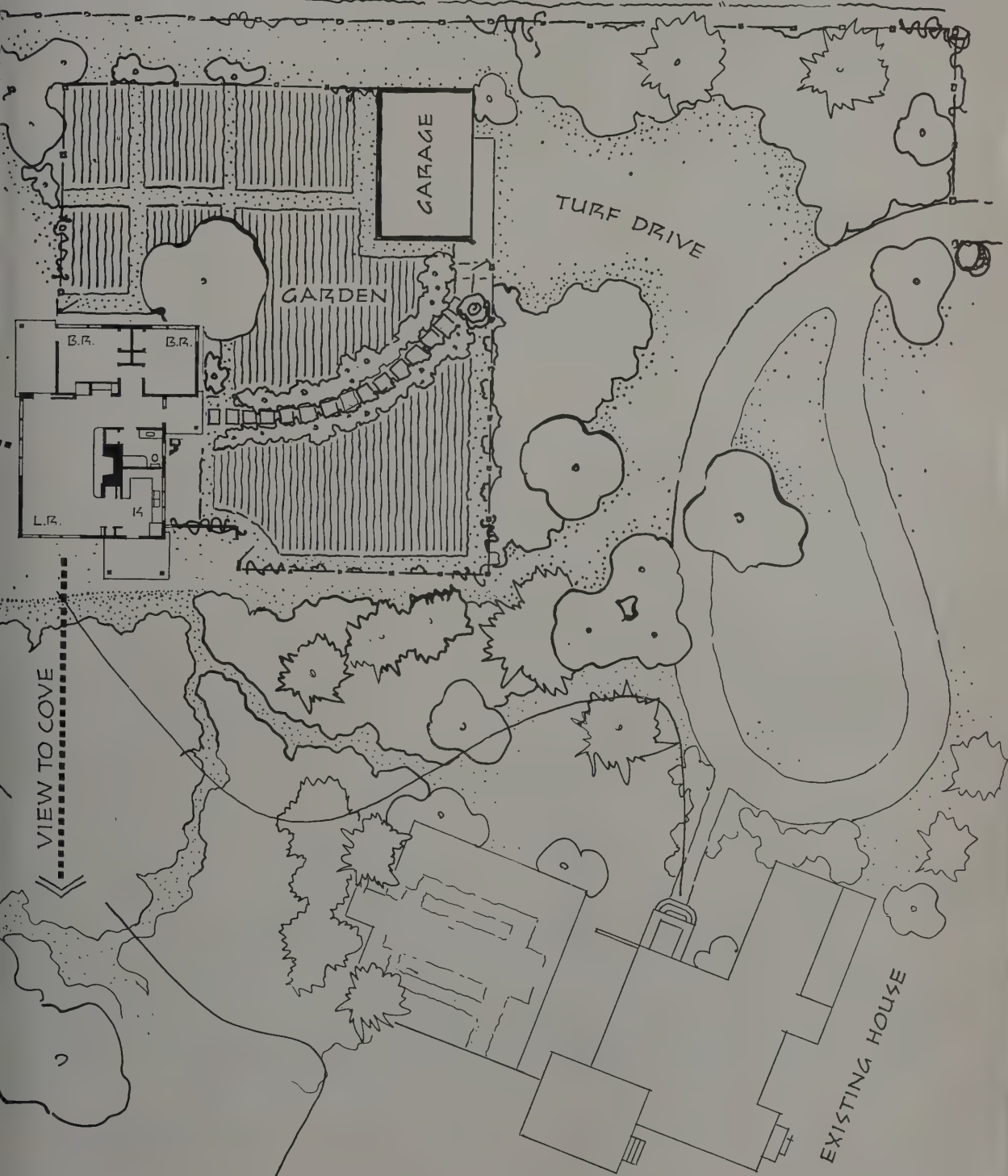


The compact plan provides an economical arrangement of the four rooms, and even includes a bar between the kitchen and living room. Matched cypress siding was used on the exterior. The sash trim is painted gray-white. Windows open in for the living room, out for the kitchen and bath, and are double hung in the bedrooms. Virtually the entire living room area (photograph below) is extended to the surrounding landscape by the use of ceiling-to-floor windows which admit an abundance of light and provide views to the ocean and cove. Interior walls are of cypress and painted fir plywood. Construction features include concrete slab foundations, flexible blanket insulation, specially-designed fluorescent and tubular lighting fixtures, radiant heating in living room and bedroom. (The landscape plan on these two pages was drawn by Cynthia Wiley)





POTATO FIELD



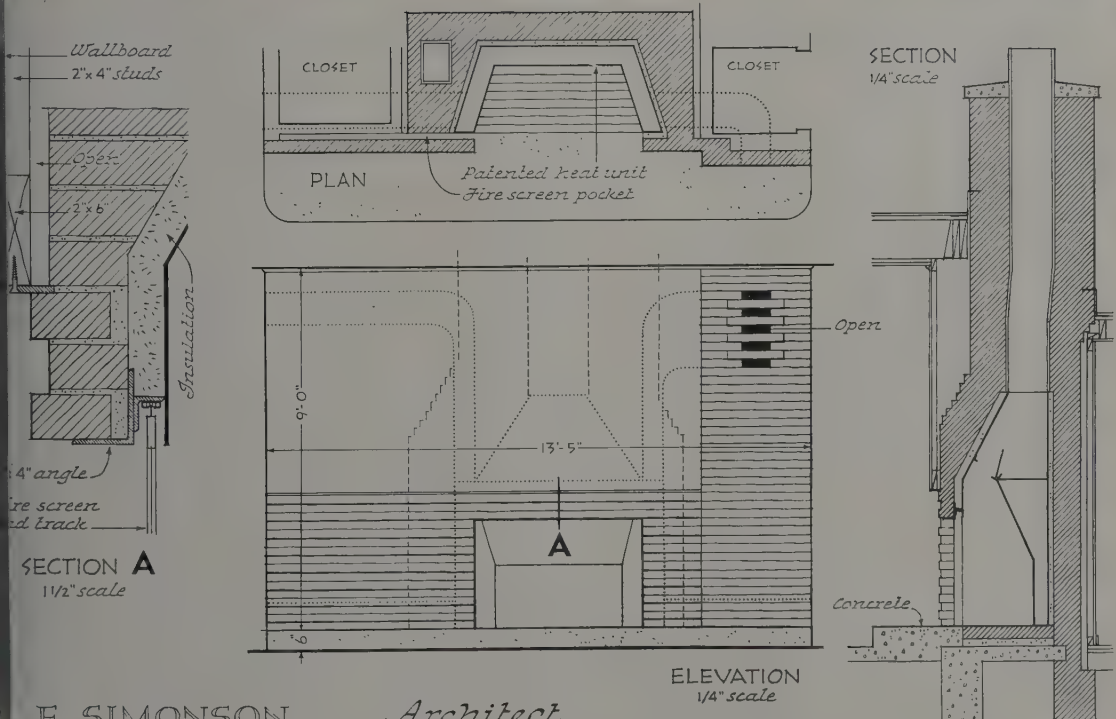


The LIVING ROOM was designed so that occupants get an excellent view of the cove (photo above) and of the ocean (see landscape plan on pages 48 and 49). The floor here is covered with blue asphalt tile





RICHARD GARRISON



E. SIMONSON . . . Architect

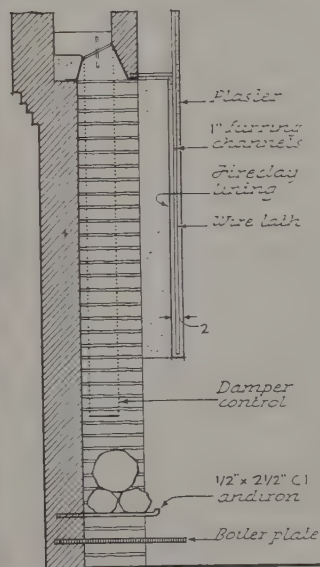


RICHARD GARRISON

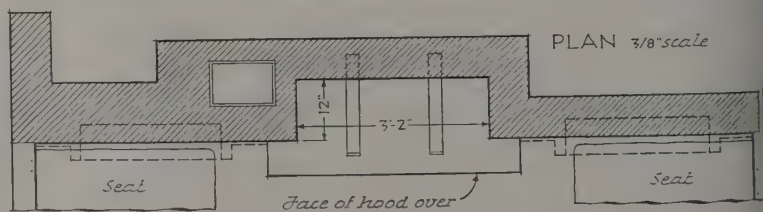
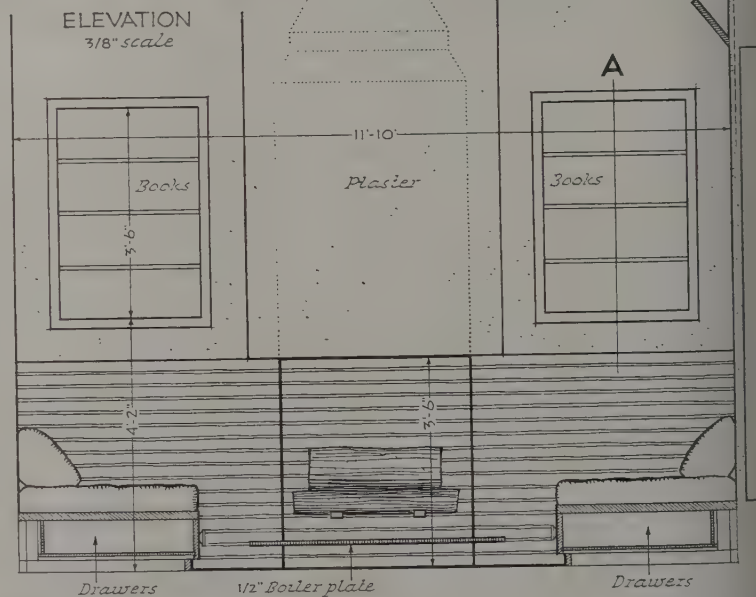
SECTION  
at A  
1 1/2" scale

Adjustable  
shelves

Face of  
brick



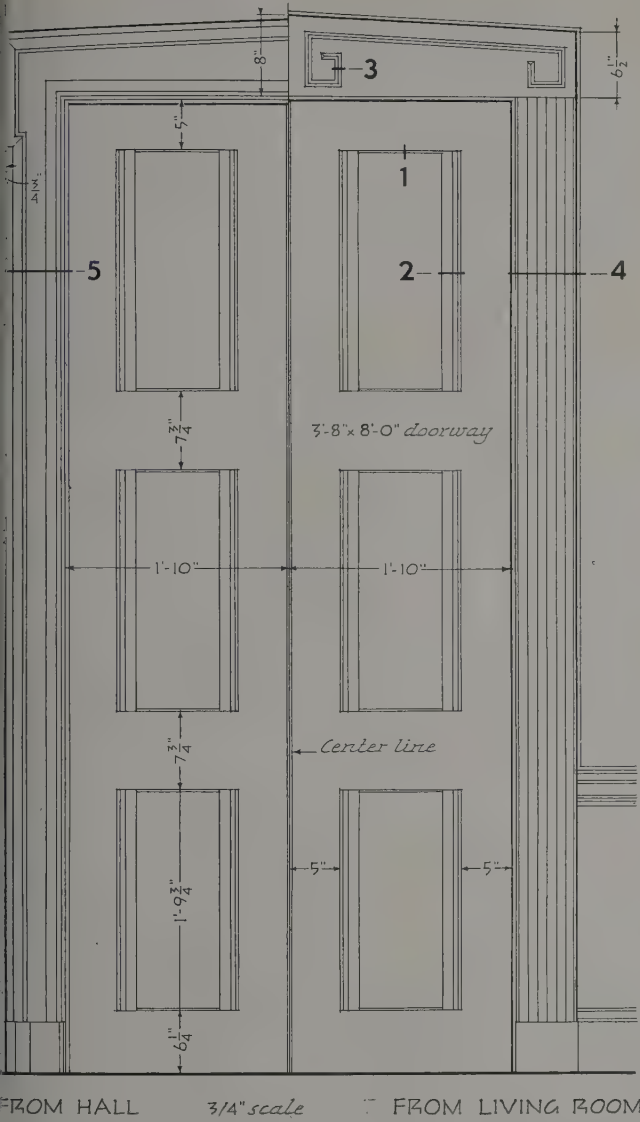
SECTION 3/8" scale



PLAN 3/8" scale

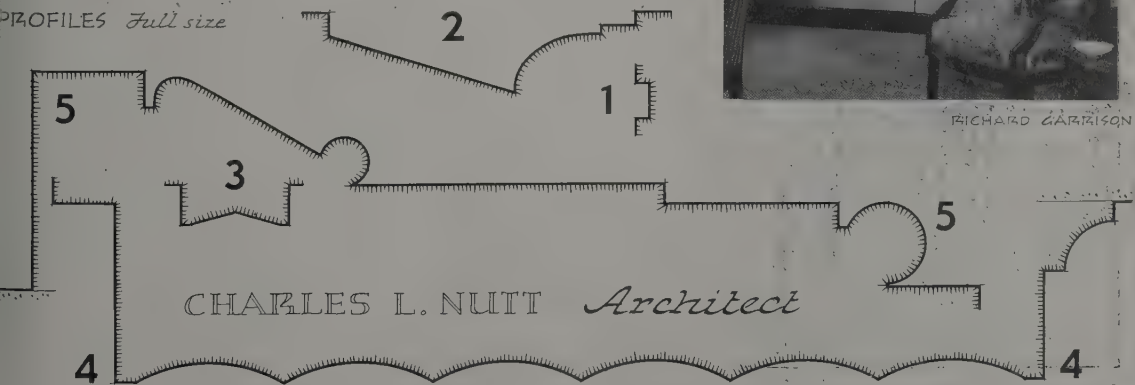
WILLIAM HAMBY  
*Architect*





RICHARD GARRISON

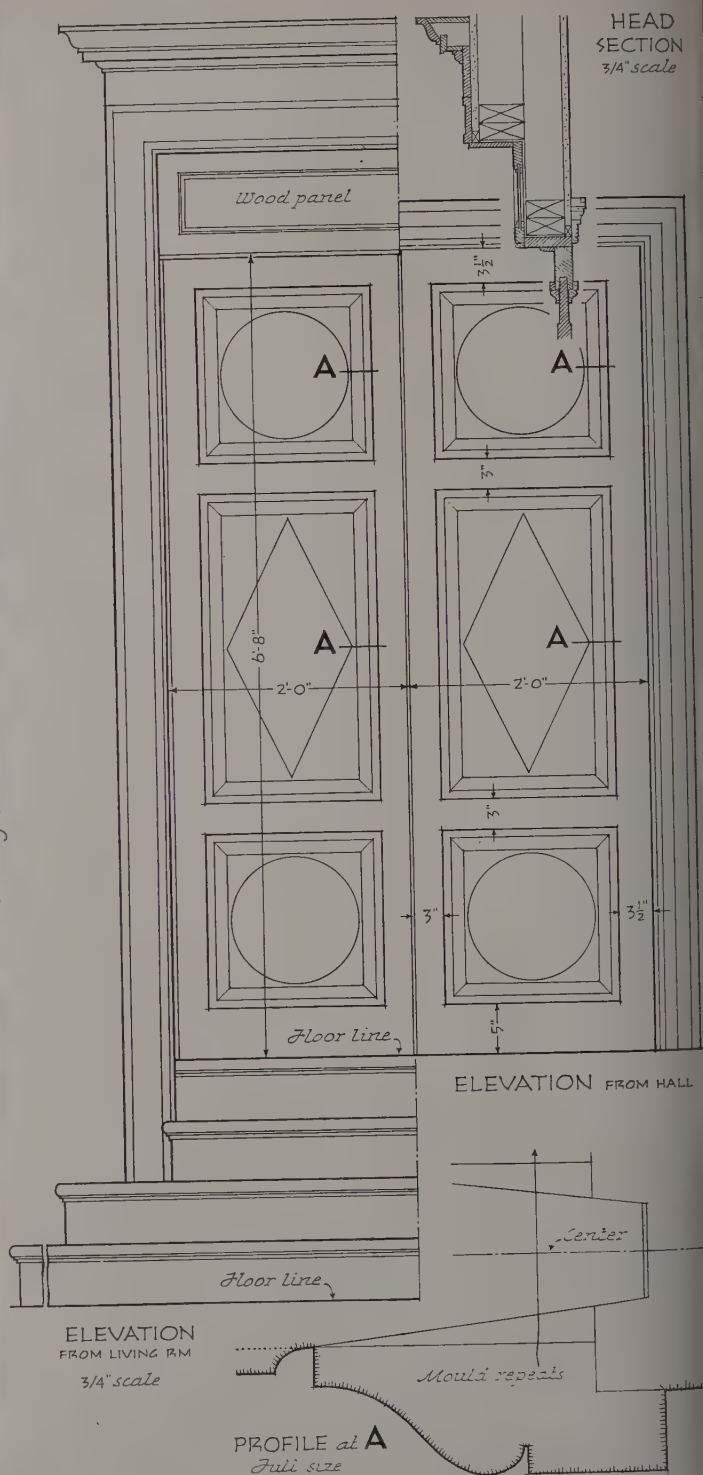
PROFILES Full size



SELECTED DETAILS



Photos by VAN ANDA



ROBERT P. RODGERS... Architect



# LITTLE PLANS WON'T DO!

BY TALBOT F. HAMLIN

THE question of planning for a future America will not down. To thoughtful men the armaments and excursions, the confusions and the prohibitions, the shortages and the regulations which mark the passing days can only reveal with startling clarity the necessity of some considered thought as to the kind of life to which we are all voting ourselves. They reveal, too, a thousand inadequacies—faults of bad distribution of goods and the wasteful use of natural resources, faults of stupid planning of communities and the thoughtless placing of industries—which have distinguished the life of the past years. It has made doubly clear the lesson we should have learned from the unhealthy boom of the 'twenties and the hardships of the depression in the 'thirties. It was not right in our kingdom of Denmark, and, if we are to make it better as soon as we are permitted, it is time for us *now* to learn the hard lessons we have been given.

## NOT BACK TO "NORMAL"

Architects especially must learn these lessons. The boom years almost destroyed the integrity of our profession through the building up of false and greedy values. The depression, though difficult financially, was a time of building up, of recovering something of the ground lost in the earlier mad scramble. But the present time, with its almost complete cessation of ordinary architectural practice, bids fair to be the severest test of all. We can no longer merely cry out for a return to normalcy, for normalcy in the old sense is dead. To attempt to resurrect its none too beautiful bones would be as disastrous as it would be futile. If we are to live as a profession we must look ahead; we must see that our future service lies not in perpetuating old and worn-out patterns of shelter or of community arrangement, but can only be made fruitful when architecture is seen as the creator of the physical environment of the America that is to be. We must

plan radically, intelligently. We can never be content with the houses or the schools or the factories or the public buildings we have thus far created, and especially we must not be content with the kind of community in which our work has had to be done. For the community pattern is bound to be one of the decisive determinants of the character of the life of ourselves and our descendants. And, just as in the community of today all the vices and sicknesses of the economics of the past have grown slums and squalor and blight, so in what we hope will be the more healthy communities of the future nobler and more intelligent ideals will produce harmony and serenity and graciousness.

## ARE WE UNWILLING— OR SOUND ASLEEP?

Great Britain has already its Ministry of Reconstruction, and, though this is as yet hardly more than a debating forum in which the problems of a new England may be discussed, it is nevertheless there, focusing on itself the hope as well as the attention of millions of British subjects. In England they have recognized the importance that civic land and city planning must play in any reconstruction work, and their interest extends far beyond the mere question of rebuilding bombed towns. Here in America, per-



haps because we have been less long at war, our ideals are still in the merely rhetorical stage and there has developed swiftly, especially in the last few months, a violent and at the moment apparently victorious reaction against the entire concept of planning. According to THE NATION of August 22, "The Department of Labor has a section working on post-war planning, but it never uses the term because it is felt that the word 'Planning' is offensive to most Americans."

Recent Congressional action on planning and housing matters has been universally hostile. Sometimes it seems as though the war emergency were being used as an excuse for wrecking even the



inadequate beginnings already made—an excuse diligently and successfully used by all of those whose demagoguery or economic interests lead them to fear any reforms. The recent radical curtailment of the great scheme for housing around the Willow Run factory is a decisive expression of what, alas, seems to be the state of mind of many in the country today. The scheme as it had been developed was one of the most intelligent approaches toward efficient and attractive housing of industrial workers; its five separate villages, each to be designed by a different group of architects, with an integrated circulation pattern but varying details, and with a green belt between the houses and the industry as well as green areas between the communities themselves, were a daring and most effective answer to a pressing American problem. To subsidize transportation facilities between Detroit and Willow Run, as opponents of the scheme suggested, would be in effect merely to subsidize the slums and the less desirable, down-at-heels, and inefficient suburbs of already overcrowded Detroit.

The failure of Congress to appropriate further money for the FPWA, like the reduction of its appropriations for the NRPB, shows this violent dislike of governmental planning. It is this condition which architects face today. It is this evil attitude—whether assumed sincerely and ignorantly as it is by many, or insincerely and maliciously as it is by a few powerful interests—which must not be allowed to triumph.

### WHOLESOME FARE, NOT FROSTING—

In the struggle, the public and the architects have been promised a sop in the so-called Public Works Reserve. Now it is undeniably true that such a reserve of public works, for which plans and specifications were completed, would be a godsend to many architects and engineers today, and at the same time might prove a valuable assistance in reducing the stresses and strains of the demobilization period. But it must also be quite



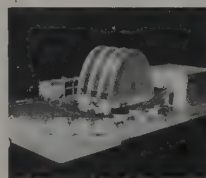
definitely understood that of itself such a reserve of planned buildings and engineering schemes does not constitute effective post-war planning. In each community, such a reserve consists merely of individual buildings and individual

not serve the future health of the community in which they are built. They may even serve to perpetuate the worst faults of an existent situation by sinking large sums of money in buildings placed in accordance with more present expediency and without regard to controlled future growth.

### —NOR HASH, HOWEVER SEASONED

If the New York list is typical of what is going on elsewhere, this short-sightedness is undoubtedly often true, for the New York list is merely a summation of requests by any number of different departments, each with its pet ideas and its pet prejudices—a list in which the City Planning Commission could act only as a sort of superior secretary without determining a single policy. Whatever planning is in them came, not from the City Planning Commission, but from the individual borough offices or from the department heads. Nowhere could they be considered or criticized as an integrated whole; there was not one who could examine them dispassionately in the light of eventual value. What might have been made a compelling step in the advancement of a Master Plan became merely a list that represented the jockeying of battling city departments. Why was this? Essentially because no master plan existed. Why did no master plan exist? Because the City Planning Commission set up to make it has never been permitted to do more than begin its job, and when its first results were announced tentatively there was such a roar of protest on the part of politicians and speculators that nothing more was done.

This condition, unfortunately, is not limited to New York. It is perhaps only rarely that city



plan commissions have had the powerful popular support which would enable them, first of all, to obtain money enough from the city government to employ adequate technical service and, second, to overcome the protests of a strident minority and really shape a better city for tomorrow. In building up the necessary popular support, architects should take a most important place. That they have seldom done so except in platitudinous generalities is, I think, one of the chief indictments of their political action as a profession.

Nevertheless, the Public Works Reserve does offer extraordinary opportunities to the architectural profession. Even if in many cases projects are merely routine and the result of b



superficial thinking, in total they represent an amount of construction the quality and character of which will be bound to have great effect on all the architecture to follow. If the politicians have let us down, we must not on that account, as a profession, let the people of America down by the same kind of backward thinking. We must strenuously and positively search in these buildings for the standards of tomorrow; we must not supinely accept those of yesterday.

## TIME TO STUDY

Perhaps this period of stopped civilian building is an opportunity to do daring creative thinking. Perhaps we can bring out of it a whole new set of standards, both practical and esthetic. When and if the Public Works Reserve comes to the point of actual architectural design, it is probable that there will be no such pressure of time hampering the study of a problem as that which exists in the emergency building of today and has existed in a great deal of the commercial building of the past; for once, architects will have a chance to study these problems as they deserve and the results might prove astounding.

To achieve this end, of course, the architect, confronted with one of these problems, must abandon many of his habitual ways of work. No standardized solutions from the past must be accepted as guides for the present without the most rigorous re-examination. If possible, the programs for the buildings themselves must be tested in the same way and criticized, and by conferences with the proper authorities modified, until new possibilities appear, and until the architect wins the opportunity to give to each building the very best his imagination can furnish.

## FOR INSTANCE, SCHOOLS—

What, for instance, of our schools, which bulk large in this program? Are our usual city schools the best that we can do? Can we not by pondering and endless study, by tracing down all clues no matter how uncertain, develop projects that shall tear the whole traditional school concept wide open for new departures? Can we not bring to this inspiring problem the same kind of radical

thought, in handling details of equipment and such, which characterized, for instance, the Bell Telephone Laboratory design shown in the August number of this magazine?

## —AND THAT FOOTBALL, HOUSING

Or take urban housing. In this there are questions of density, of group arrangement, which should challenge the imagination of every designer.



Are we sure that the great and frequently oppressive brick barracks with which the conservatives say we coddle the poor are the only answer to this greatest of all architectural problems?

Do our unit plans take advantage of all we know about mechanical equipment, about living ways, about people's needs? Surely not. And merely, in these proposed new developments, to copy or even slightly improve what we have done so far is not going to be enough. We must think all these problems through to their ultimate bases,



and their ultimate base is the human being. In this design of buildings to be built after the war, and in fact in all true architectural design, the architect is designing not only an arrangement of brick and stone, and steel and concrete, and wood and glass; he is also, whether he knows it or not, designing human lives. This should be the watchword for architects in this entire effort. Our war, we believe, is for democracy; that is, for people's right to be people. Surely our architecture designed in this period for the America of the future may well have the same enduring and noble purpose.

PHOTO CREDITS: PAGE 55—WURTS BROTHERS (AEOLIAN BUILDING, WARREN & WETMORE, ARCHITECTS); RESETTLEMENT ADMINISTRATION (GREENBELT HOUSING PROJECT, RESETTLEMENT ADMINISTRATION); PAGE 56—SAMUEL H. GOTTSCHO (NATIONAL GALLERY OF ART, OFFICE OF JOHN RUSSELL POPE, ARCHITECTS); MODEL, NEW YORK CITY ASPHALT PLANT (ELY JACQUES KAHN, ROBERT ALLAN JACOBS, ARCHITECTS); PAGE 57—A. F. SOZIO (APPROACH TO GEORGE WASHINGTON BRIDGE); RESETTLEMENT ADMINISTRATION (MODEL OF HOUSING UNIT, RESETTLEMENT ADMINISTRATION); USHA (LAKEVIEW HOUSING PROJECT, BUFFALO, NEW YORK); RICHARD GARRISON (ACQUACKANONK HOUSING PROJECT, HENRY S. CHURCHILL, ARCHITECT)



# KINGSFORD HEIGHTS

by A. D. TAYLOR

**EDITOR'S NOTE:** *We know many temporary, minimum-cost, war housing communities are being built. More will probably spring up. The men responsible for their design and execution—architects, planners, engineers, landscape architects—have to learn a new technique, composed of unfamiliar design processes, of relationships with governmental authorities which did not exist until recently, of supervision over building methods newly evolved for large-scale operations.*

*To help clarify this new technique, THE NEW PENCIL POINTS is publishing three articles based on experience gained in designing and building KINGSFORD HEIGHTS, a brand new community created in the Indiana cornfields. The first article, on design, appears herewith. The two remaining, to be published in future issues, cover: contracts and production of plans; and construction procedure.*

*Kingsford Heights contains 3,150 dwellings.*





## Some Problems of Design for PREFABRICATED HOUSING

units, all prefabricated. It occupies 550 acres; its potential population is over 13,000. Completed almost overnight, and hedged about with government restrictions, it has acknowledged faults; but as a case study of procedures it merits close scrutiny. Substantial credit is due those who produced it: A. D. Taylor and Associates, Architect-Engineer; Garfield, Harris, Robinson and Schafer, Consulting Architects; and R. F. MacDowell, Consulting Sanitary Engineer.

**K**INGSFORD HEIGHTS—like many another war housing project—came into being because a great ordnance plant, built in a sparsely populated section, requiring housing facilities for an adequate, continuous labor supply. There may be, in other cases, some question as to whether to add housing to adjacent communities, or to build a new development. In this case, existing conditions led to the establishment of a new community.

Site selection was the next important step, followed by an analysis of utilities problems, including water supply, sewage disposal, electricity, etc. And all of the following had to be provided for: Adequate Housing, Schools, Churches, Hospital, Fire Protection, Post Office, Commercial Developments (stores, small businesses, offices), Outdoor, Indoor Recreation (buildings, parks, playgrounds), Traffic Circulation, and Community Buildings.

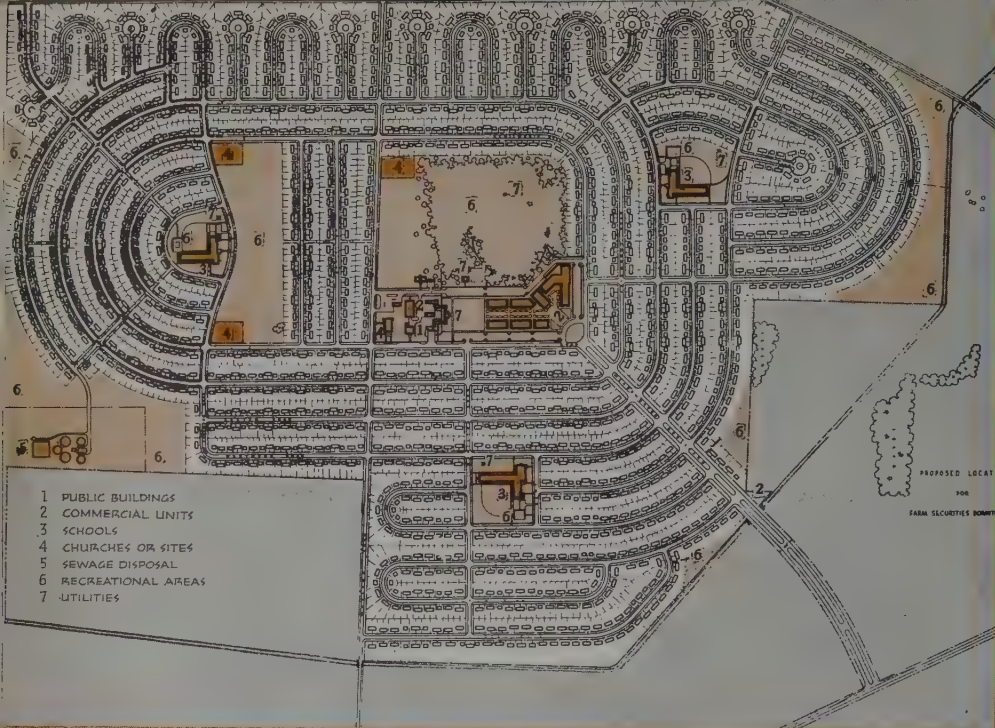
The design of such a project involves consideration of the possibility that the whole community or parts of it may become permanent—or, conversely, may be needed no longer after the war. Extremely complicated, this question involves thorough study of regional problems, chiefly to determine to what extent agriculture and industry can provide sufficient income to maintain the populace when peace returns.

### Conditions Governing Design

In all such temporary housing projects certain requirements, imposed by the government, directly affect design and limit the designer's freedom. Cost limits here were \$4,000 per dwelling unit, including all house and site expenditure, but excluding costs of non-dwelling, community buildings. All dwellings were to be prefabricated; five prefabricators supplied the houses. Non-dwelling buildings were individually designed.

The Government required a *subdivision* type of design, as opposed to *super-block* development. Subdivision planning provides each family unit with its own, tenant-maintained lot, directly abutting on an improved right-of-way, or street. It is further required that the *front* of each dwelling face the street, and that in no case could the *end* of a dwelling face the street.

These decisions restricted the freedom which might have been obtained by a super-block layout. For the size and number of houses required, in the area given, subdivision planning here reduced lots to about 30 to 40 foot widths and 97 foot depths, increased the cost of site work by



First step was site selection. Site had to be close enough to the plant so that with gasoline and rubber rationing imminent, employees could walk to work. In selecting it, local factors were considered, including: topography suitable for economical development, subsoil and ground water conditions, natural drainage, and existing vegetation. Regional problems included: relationship to existing highways, access to nearby communities, climatic conditions, availability of public utilities, and the possibility of protecting the community from undesirable encroachments such as might follow future shifts of population or industry, or changes in government policies. A topographic and boundary map (below) contains detailed information on tree locations, wooded areas, subsoil and groundwater data, etc. Next, a land-use analysis (across-page) was prepared as a basis of determining areas for specific uses. Roads follow contours, avoid expensive grading

at least 20 percent (over super-block planning), and produced a density of 9 families per acre (excluding parks, recreation areas, right-of-way).

In contrast, super-block planning could have produced a more open scheme, lessened site costs, and, by reducing the area needed for rights-of-way, increased density to 12 families per acre.

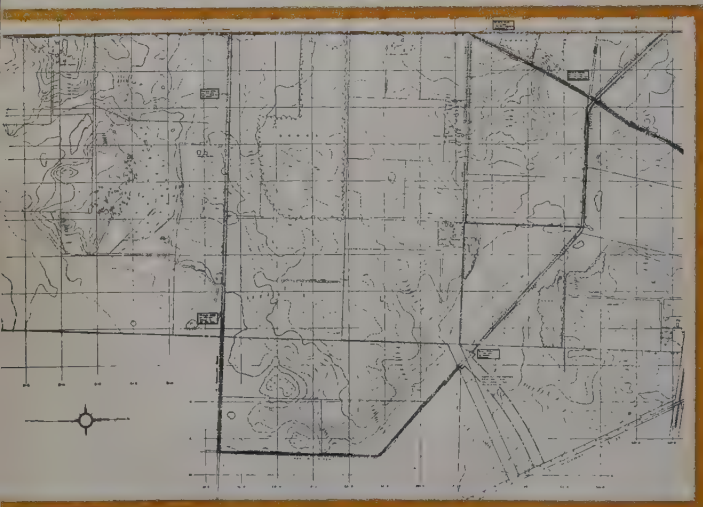
Design was further limited by the requirement that grading be kept to a minimum; and by priority restrictions, one of which, for example, made it necessary to adopt a type of water distribution layout not normally considered adequate.

### Design Procedure

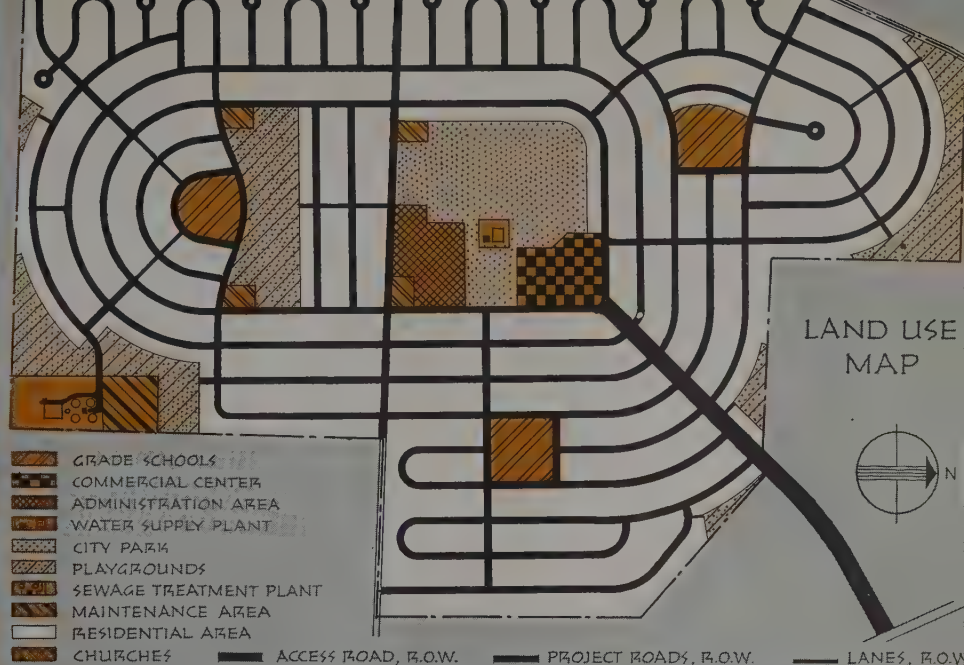
The first step was preparation of a land-use study to determine distribution and sizes of areas required for specific purposes. (Table, page 61.)

With fundamental land usage determined, center lines of community roads were fixed to allow desired lot depths. Roads follow contours as far as practicable, and widths of rights-of-way are sufficient to provide for the type of gutter, sidewalks, and width of roadbed required (see illustrations, page 63). From this point, the problem becomes one of details.

The limited acreage available made it imperative to adopt minimum lot dimensions in order to accommodate all the dwelling units. (In fact, distribution of dwelling units was so carefully worked out that relocating a single unit, which became necessary in the course of construction, was difficult.) No provision was made for garages — a Federal requirement — but rather,







roads were designed for one-side parallel parking, which will take care of approximately 100 percent of normal parking needs.

Location of utility lines bears a definite relationship to construction procedure as well as to soil conditions, etc. At Kingsford Heights the sandy subsoil entailed use of abnormally wide trenches for the main utility lines. These might delay construction, particularly "mass-production" construction. Therefore, utilities were located along the rear property lines. This allowed construction of roads and sidewalks to proceed simultaneously with the installation of utilities; building material was hauled and stored in the area between the structures and the sidewalks, and on community areas.

## Building Design

On this project, in which dwelling units are entirely prefabricated, there are four different types of exterior design, produced by five separate house fabricators. Distribution of various types of houses might have produced a more pleasing composition if they had been more completely intermingled. However, it was decided to allot to each prefabricator a definite, large area in which to erect houses of one type of design. This procedure, intended to expedite erection of the houses and insure economy, inevitably results in some monotony (Drawings, page 62).

To relieve this situation, wise use of color in painting house exteriors can be helpful. The normal tendency is to use variations of pastel

## LAND-USE ANALYSIS

|                              |        |
|------------------------------|--------|
| GROSS AREA (acres)           | 530.0  |
| 3 Grade Schools              | 12.43  |
| Church Sites                 | 3.2    |
| Commercial Center            | 8.11   |
| Administration               | 6.8    |
| Water Supply Plant           | 0.94   |
| City Park                    | 22.43  |
| Playgrounds                  | 36.14  |
| Sewage Treatment             | 5.21   |
| Maintenance Area             | 3.53   |
| Rights of Way                | 92.35  |
| Total                        | 191.14 |
| NET RESIDENTIAL AREA         | 338.86 |
| DENSITY: 9.30 units per acre |        |

Information is limited. Study of USHA and PBA data and extensive research proved satisfactory

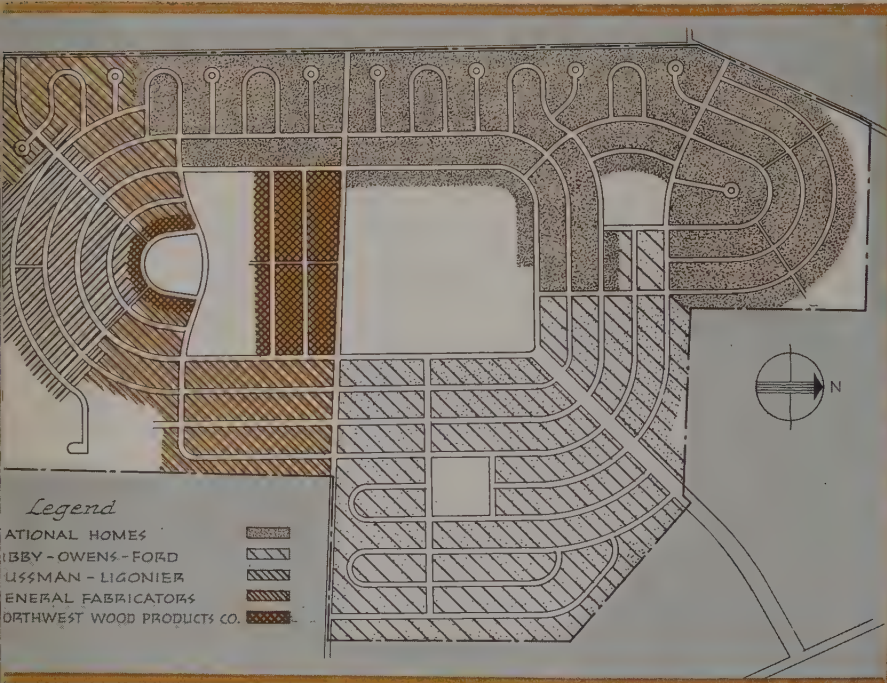
Sewage treatment plant was located away from houses at a point where direct connections could be made to the main drain-ditch. The hospital will be placed where prevailing winds



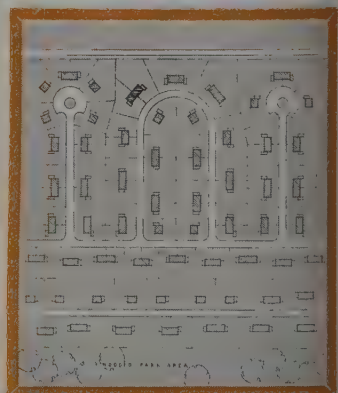
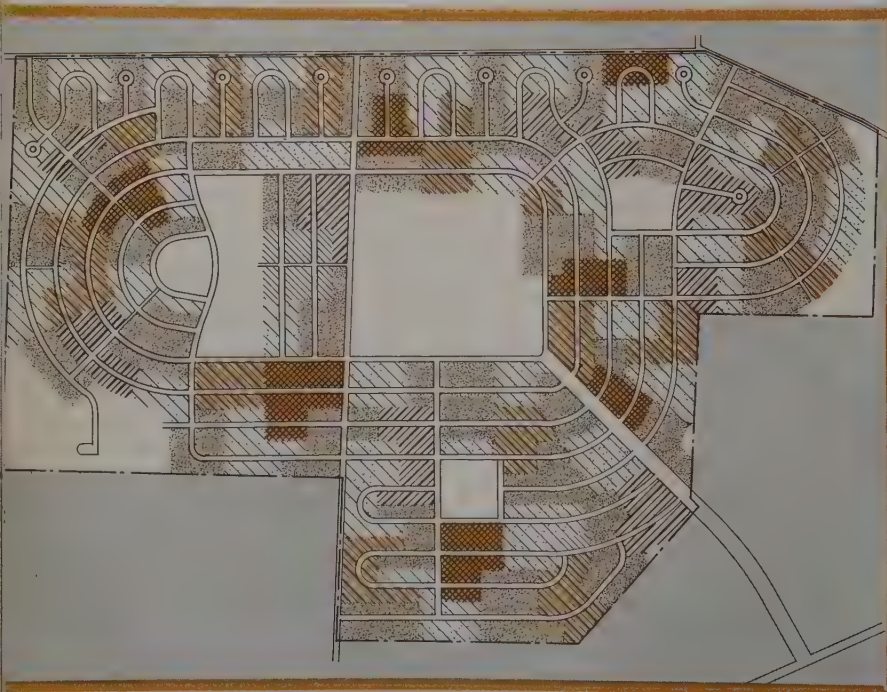
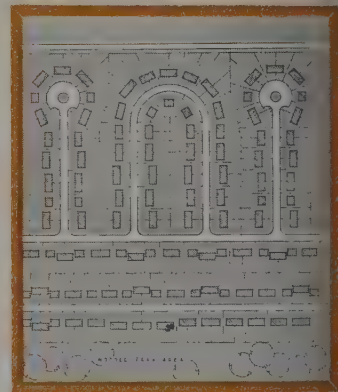
shades, *not* strong contrasts. Greater interest can be achieved by painting trim, by requiring specified color contrasts on the factory-painted sash, and by selecting colors of greater contrast than pastel shades.

Early in the program, dwelling plans must be carefully analyzed. Widths and depths of the

units are important in determining lot sizes. Floor construction varies, a fact which affects the "crawl" space which must be left under each house. Foundation skirting boards must be 4 to 6 inches above finished grade, to prevent soil from piling up against them, to maintain air circulation, and to allow free passage to whatever limited



Left, plan showing HOUSE DISTRIBUTION with all of each prefabricator's units together. Experience gained here indicates that groups of 15 to 30, more carefully mixed, would have been just as economical to erect and would have added variety. Government study shows the following proportions of house types: 1 Bedroom, 14%; 2 B.R., 26%; 3 B.R., 60%. Half should be left hand; half should be right



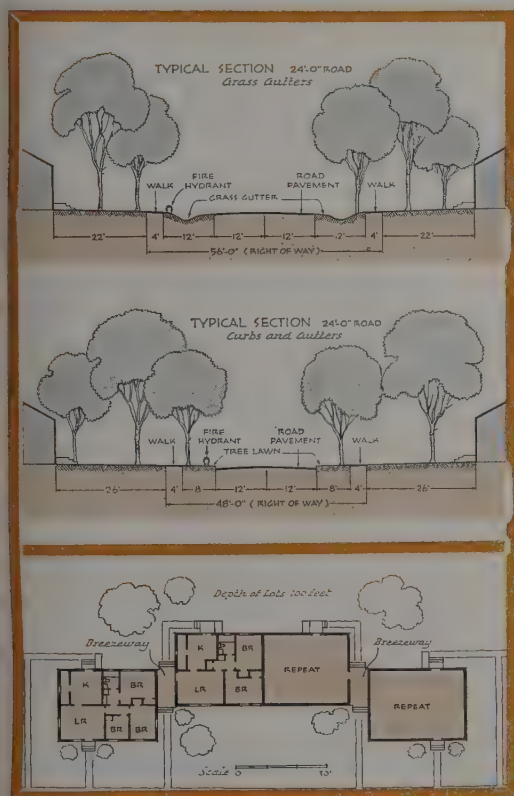
Drawings above show how parts of the project can be made more livable after the war than emergency conditions permit. Top drawing (present scheme) is too crowded. Lower drawing shows every alternate structure removed, providing more open development, a garage with each dwelling unit. Value of prefabricated houses as permanent structures must be considered



amount of surface drainage may flow across the lot. Designs must be checked to make certain that the standard provision of three entrance steps can be adapted to suit site grades. Final grades are designed to carry surface drainage away from structures where possible, without abnormal grading costs.

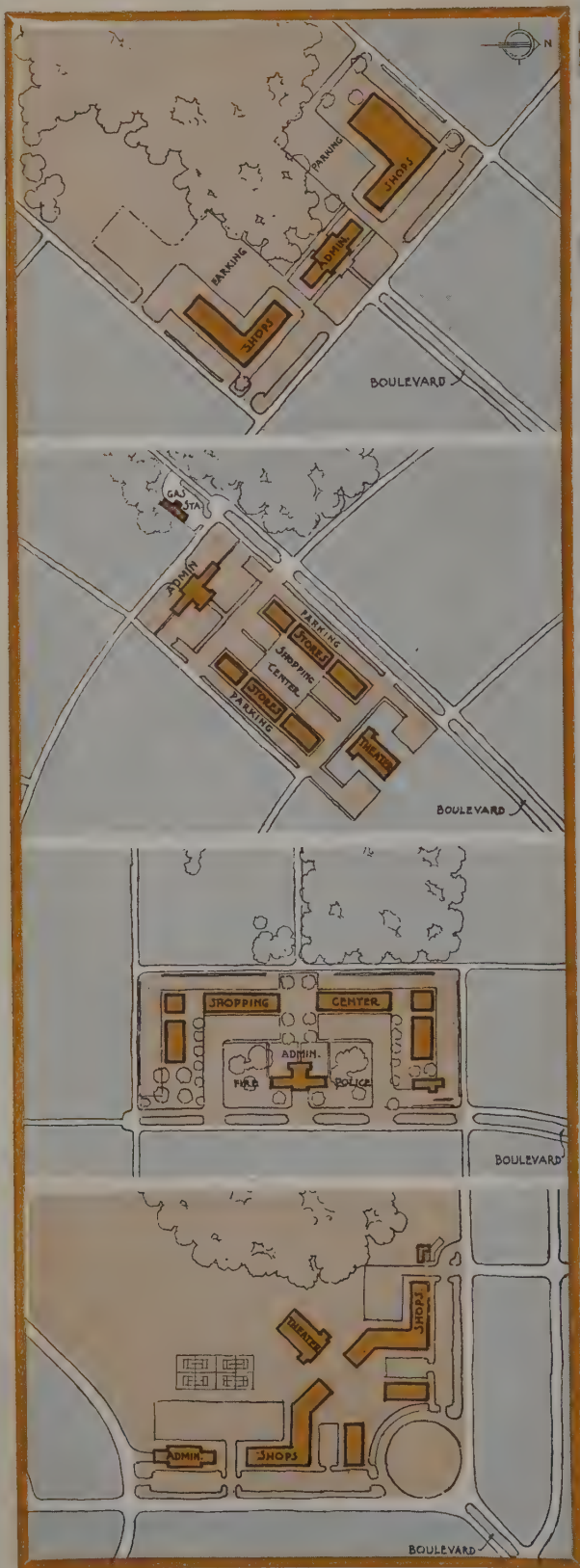
Community buildings in Kingsford Heights are typical problems in design, with the added requirement that all be of temporary construction. This is no excuse for shoddy planning; but it does require careful consideration, in design and specifications, of the intended life of the project.

Planting for prefabricated housing projects likewise deserves painstaking study. Though planting in this project is kept to a minimum, it



Top sketches contrast methods of ROAD DESIGN with turf gutters (economical construction, high maintenance) and with curbs (high first-cost, low maintenance, permanence). Concrete, macadam roads require excavation, subgrade preparation, imported road material; soil-cement needs only forming to finished profile; sand-asphalt may need "borrow" material. Crossovers span sidewalks at 200-foot intervals. Plan above: four units in a "BREEZEWAY" structure. RIGHT: grouped variety is achieved by curved streets, occasional set-backs, trees and shrubs, variations in roof texture and in color and exterior painting



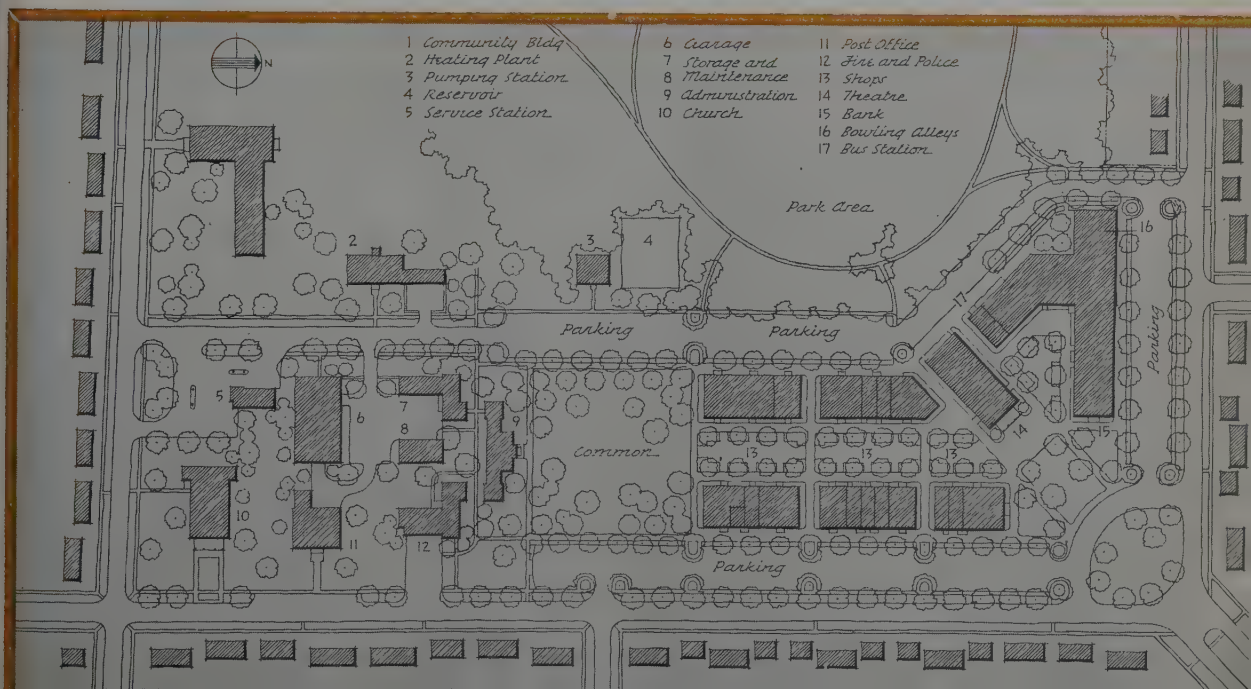


THE COMMUNITY CENTER is adjacent to an existing 15-acre woodland area which becomes a recreational park — a fortunate juxtaposition. Roads about the center are designed for circumferential traffic, rather than for carrying any considerable portion of the through traffic directly through or around the center's buildings. At left are preliminary studies, all of which were discarded in favor of the plan at the right. In the accepted scheme, above principles are followed. This type of plan also provides convenient circulation for busses, and easy access to shops, administrative buildings, etc., from parking areas. Commercial requirements for the community, all contained in the community center except for a few outlying service stations, etc., are as follows:

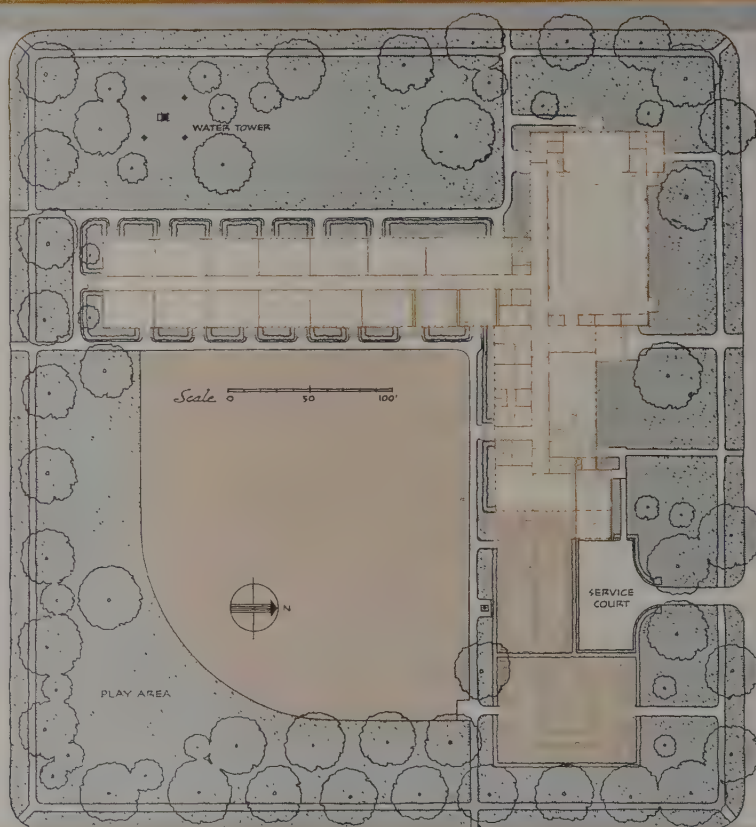
| Type of Service                        | No. of Store Units | No. of Employees |
|--|--------------------|------------------|
| Food Stores                            | 9.0                | 30               |
| Drug Stores                            | 7.5                | 25               |
| Delicatessen & Confectionery           | 2.0                | 6                |
| Restaurant                             | 4.0                | 32               |
| Valet, Tailor, Pressing & Dry Cleaning | 2.0                | 6                |
| Post Office                            | 1.0                | 4                |
| Liquor Store                           | 1.0                | 3                |
| 5c & 10c Store and Hardware            | 3.0                | 10               |
| Barber & Beauty Shop                   | 2.0                | 18               |
| Cocktail Bar                           | 1.0                | 8                |
| Bowling Alleys                         | 6.0                | 12               |
| Billiards                              | 2.0                | 5                |
| Public Utilities                       | 2.0                | 9                |
| Professional Offices                   | 1.5                | 11               |
| Junior Dept. Store—Dry Goods, etc.     | 5.0                | 20               |
| Bank                                   | 1.0                | 7                |
| Ice Station                            | .5                 | 2                |
| Jewelry & Watch Repair                 | .5                 | 2                |
| Florist                                | .5                 | 2                |
| Bus Station                            | .5                 | 4                |
| Gas Station                            | 1.0                | 6                |
|  | 53.0               | 222              |

The community buildings, unlike the houses, are not prefabricated. However, all are simply designed, intended to serve immediate needs, not as permanent structures. Garfield, Harris, Robinson & Schafer were the Consulting Architects





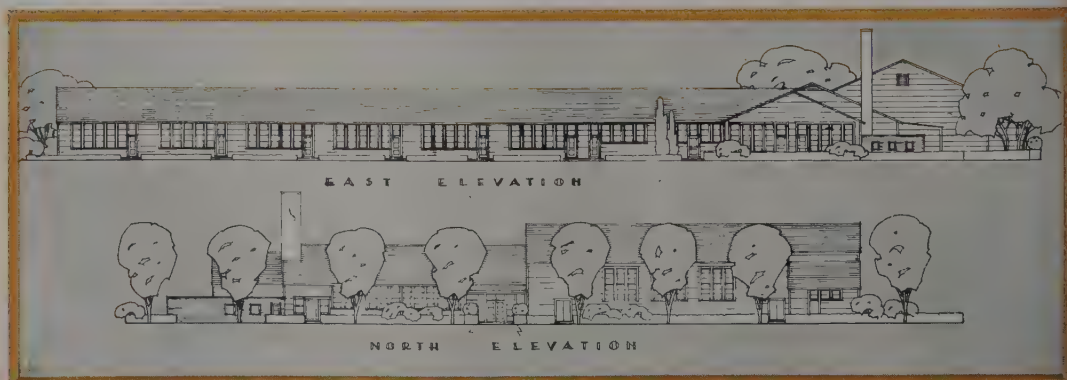
- 1 CLASS ROOM
- 2 LIBRARY
- 3 AUDITORIUM
- 4 BOOKS
- 5 JANITOR
- 6 STORAGE
- 7 CHECK ROOM
- 8 GENERAL OFFICE
- 9 PRINCIPAL
- 10 FACULTY
- 11 CLIP. C
- 12 KINDERGARTEN
- 13 CAFETERIA
- 14 KITCHEN
- 15 BOILER ROOM
- 16 FUEL STORAGE



Above, plan of a TYPICAL SCHOOL BUILDING AND GROUNDS; below, elevations. Each of the three elementary schools is located approximately in the middle of the neighborhood it serves; there is about one school per 1,000 dwelling units. Similar in construction to Community Center buildings, the schools were also designed by Garfield, Harris, Robinson and Schafer. Note that school plans follow advanced standards. All classrooms open directly to the outdoors; play-grounds for children of different ages are segregated; kindergarten area has surfaced space for wheeled toys; community rooms and kindergarten have entrances independent of older pupils' area

was recognized that some planting greatly enhances what might otherwise be an uninteresting scene. Fast-growing trees and a very few shrubs comprised the suitable planting materials.

Specifications and cost estimates are of equal importance with the plans. Specifications must be brief, yet complete enough to avoid later misunderstandings. Preliminary cost estimates should be prepared as the studies develop, and checked to see that any proposed work can be constructed within government-imposed cost limits.





# DATA SHEETS

## By Don Graf

### TIMBER STRUCTURES

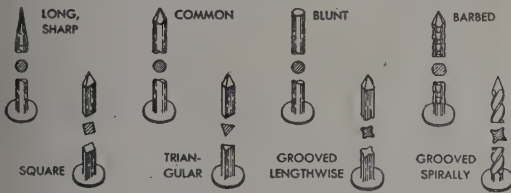
### SAFE LOADS ON NAILS (1)

Index No.

**B2k**

STRUCTURAL

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF



**WITHDRAWAL RESISTANCE.** Force required to withdraw nails is related to density (specific gravity) of the wood and depth to which nails penetrate. If driven into green wood, nails have greater withdrawal resistance (for most species of wood) than that for nails driven in seasoned wood. As seasoning progresses, withdrawal resistance lessens except for such woods as Southern yellow pine, black walnut, chestnut and some oaks, which retain most of their original holding power. Nails driven perpendicular to grain have maximum withdrawal resistance. If parallel to grain, holding power drops 25 to 50 per cent. However, in dense hardwood, resistance is only slightly changed as the driving angle changes. Nails driven in tight-fitting bored holes have increased holding power and less tendency to split wood.

**TYPES OF NAILS.** Nails with long sharp points have high holding power but may split wood. Blunt points do not split wood but have less holding power. All nails shown with distorted shanks, except barbed nails, have higher withdrawal resistance than common nails. Barbed nails, if pulled immediately, have less resistance than common nails. Source: U. S. Forest Products Laboratory.

#### SAFE WITHDRAWAL RESISTANCE IN SEASONED WOOD

Lbs. per inch of penetration into main member; perpendicular to grain

| Wood                    |                  | Common Wire Nails |    |           |     |     |     |     |     |     |
|-------------------------|------------------|-------------------|----|-----------|-----|-----|-----|-----|-----|-----|
| Species                 | Specific Gravity | 6d                | 8d | 10d & 12d | 16d | 20d | 30d | 40d | 50d | 60d |
| Birch, yellow and sweet | .69              | 51                | 60 | 67        | 74  | 87  | 94  | 102 | 111 | 120 |
| Douglas Fir             | .51              | 24                | 28 | 32        | 35  | 41  | 44  | 48  | 52  | 56  |
| Maple, sugar            | .68              | 50                | 57 | 65        | 71  | 84  | 91  | 99  | 107 | 115 |
| Oak, red & white        | .69              | 51                | 60 | 67        | 74  | 87  | 94  | 102 | 111 | 120 |
| Pine, longleaf          | .64              | 34                | 39 | 45        | 47  | 50  | 55  | 59  | 64  | 69  |
| Pine, northern white    | .37              | 13                | 15 | 17        | 19  | 22  | 24  | 26  | 28  | 30  |
| Pine, ponderosa         | .42              | 15                | 17 | 19        | 21  | 25  | 27  | 30  | 32  | 35  |
| Pine, shortleaf         | .59              | 28                | 32 | 36        | 38  | 41  | 44  | 48  | 52  | 57  |
| Redwood                 | .42              | 15                | 17 | 19        | 21  | 25  | 27  | 30  | 32  | 35  |
| Spruce, Sitka           | .40              | 14                | 17 | 19        | 21  | 25  | 27  | 29  | 31  | 34  |

NOTE: Values include a Factor of Safety of 6.

### TIMBER STRUCTURES

### SAFE LOADS ON NAILS (2)

Index No.

**B2I**

STRUCTURAL

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF



**PENETRATION** of nail into piece receiving the point should be at least  $\frac{3}{8}$  length of nail for dense hardwoods (a);  $\frac{1}{2}$  for softer woods (b).

**LATERAL RESISTANCE.** Values obtainable from formulae in Table I are for lateral resistance of nails in joints for common use or in concealed joints. For some cases, higher loads can be used. Those given are proportional-limit loads; maximum loading for coniferous woods is about 6 times, for dense hardwoods about 11 times, values in Table I. For nails holding metal to wood, loads can be increased 25 per cent.

For nails driven parallel to the grain, safe lateral loads should be reduced to 60 per cent of values given. Nails driven into green wood also have less lateral resistance (approx. 25 per cent); if important joints must be built of green wood, joints should be reinforced with more nails as the wood seasons. Setting the old nails is not sufficient. Data from U. S. Forest Products Laboratory.

SET  
22  
OCT  
1942

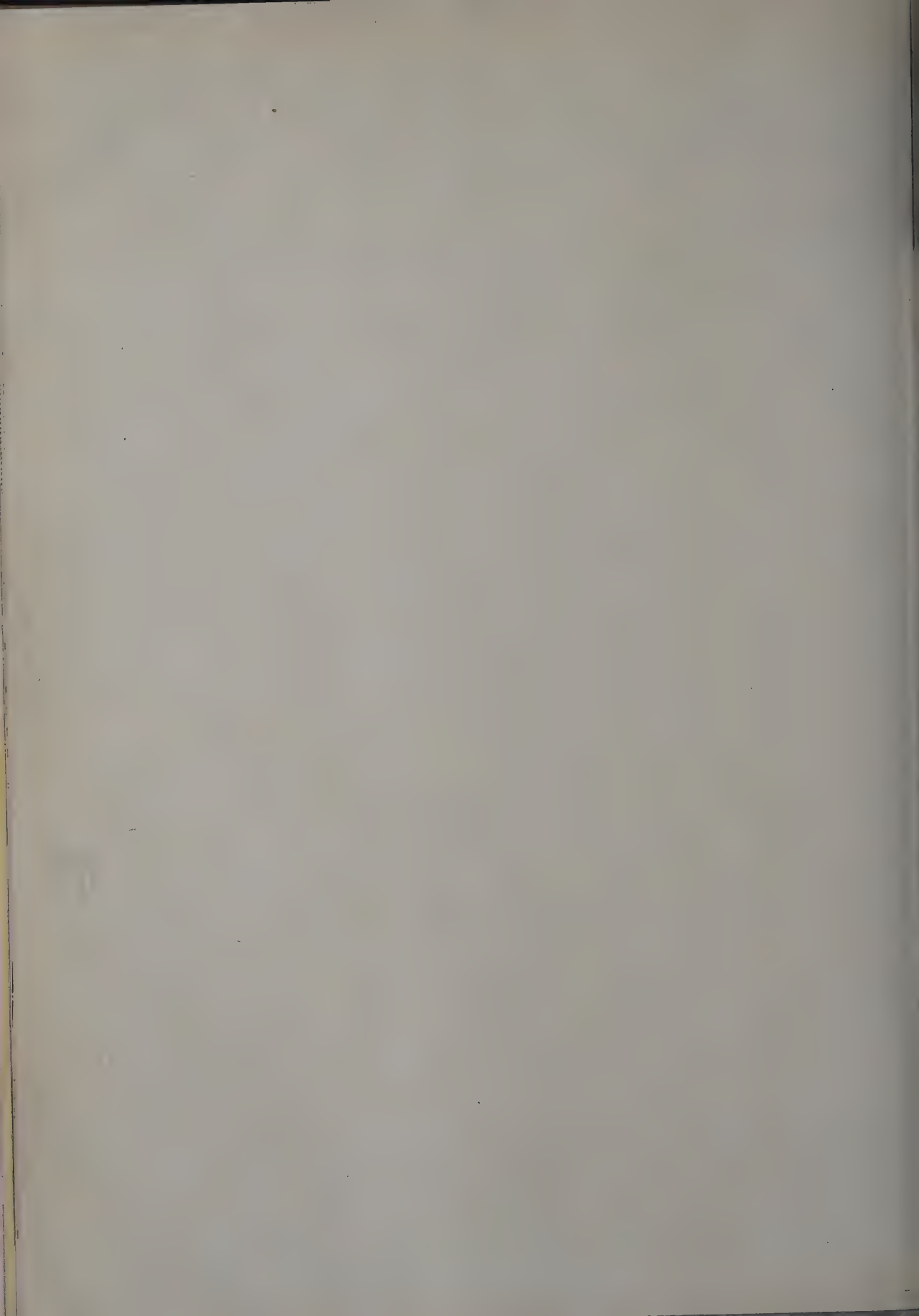
TABLE I: SAFE LATERAL RESISTANCE  
Common wire nails in seasoned wood (15% moisture content)

| Equation* for determining resistance | Species of Wood  |
|--------------------------------------|--|
| $P = 900 D^{3/2}$                    | Fir, balsam and commercial white; Pine, lodgepole, ponderosa, sugar, northern white and western white; Spruce, Engelmann, red, Sitka, and white. |
| $P = 1125 D^{3/2}$                   | Cypress, southern; Douglas fir (Rocky Mountain region); Hemlock, western; Pine, Norway; Redwood  |
| $P = 1250 D^{3/2}$                   | Maple (soft), Red and Silver   |
| $P = 1375 D^{3/2}$                   | Douglas Fir (coast region); Pine, southern yellow  |
| $P = 1700 D^{3/2}$                   | Ash, commercial white; Ash, Oregon; Beech; Hickory, true and pecan; Maple (hard), black and sugar; Oak, commercial, red and white                |

\*Basic equation:  $P = KD^{3/2}$  in which P = lateral load in pounds per nail; K = a constant as given in Table I; D = diameter of nail in inches. Use 60% of values obtained for nails parallel to grain.

TABLE II: VALUE OF  $D^{3/2}$  FOR COMMON NAILS

| Size | $D^{3/2}$ | Size | $D^{3/2}$ | Size | $D^{3/2}$ |
|------|-----------|------|-----------|------|-----------|
| 4d   | .0311     | 12d  | .0570     | 40d  | .1068     |
| 6d   | .0380     | 16d  | .0652     | 50d  | .1205     |
| 8d   | .0474     | 20d  | .0841     | 60d  | .1349     |
| 10d  | .0570     | 30d  | .0942     |      |           |







# DESIGN for EARNING By Arthur C. Holden

*(Third in a series of articles on the Changing Aspects of Architectural Practice)*

**W**HEN architects go out to sell the public the slogan that "good design pays," they must make it clear that good esthetic value is based upon something more than *aspect*. Esthetic value is the result of a co-ordination of economic, social, and physical forces.

Functionally, architects are co-ordinators above all else. To clarify the function of the architect to the public, it is preferable to dwell upon the obstacles which the public faces and show how these may be overcome by co-ordination. It is better tactics to show that the architect can help the public to solve its problems rather than to try to persuade the public to support the architect because of some inherent merit which the public may not consider important. In the mind of the public, one of the greatest obstacles to be overcome is the cost of building. The public has its own ways of meeting this difficulty. It can refrain from building or it can attempt to economize and to build more cheaply.



## WE NEED ECONOMIC UNDERSTANDING

An illusion to be dispelled is that construction is so expensive that it cannot be undertaken except when the urgency of an actual physical shortage exists. Here the construction industry would do well to recall a lesson that was taught by the piano manufacturers years ago. Recognizing that only a limited clientele possessed enough cash to meet the price of piano manufacture, experiments were tried in the acceptance of paper obligations for time payments. Experience showed that these could be sold to an installment finance company which, in turn, could resell the obligations to the investing public. It was shown that a widening public could afford pianos, provided they could

set aside from current earnings amounts sufficient to meet time payments and provided these time payments appeared to be equivalent to such rent as might be asked for the use of the piano.



## BUILDING FINANCE IS IMPORTANT

Although building and loan societies have been in existence for one hundred years, and although these societies are founded on time payment principles, the construction industry in general has made comparatively little use of the idea. Most architects think only in terms of total cost. They assume it is not theirs but their clients' business to consider the amount of cash required to pay for total costs. If their clients do not, themselves, possess spot cash, architects usually do not concern themselves about the means by which these clients may command the temporary use of cash to discharge the first cost of construction, and then provide for the gradual writing off of the debt incurred. The terms which can be worked out for carrying and amortizing the financing are a factor in determining construction cost.

A generation of architects has grown up since the building boom which followed the first world war. Most of the architects who began practice in that period, and who put their innocent trust in others for advice on economic and financial subjects, did not realize that they were helping to write their own "death warrants." Today these architects long for a return of the conditions under which they commenced work. They recall with pride that they were then called upon to design office buildings, hotels, apartment houses, residences, schools, and public buildings. They know that their achievements proved the marvelous physical productive capacity of the building in-



dustry. But the architects of twenty years ago failed to realize that their buildings could not for indefinite periods carry mortgages with interest rates calling for  $6\frac{1}{2}\%$  and  $7\%$  per annum. If they thought about it at all, these architects believed that capital was something static. They failed to realize the significance of the return flow of value. They failed to realize that failure to provide for this return flow could cause economic stagnation, collapse, and the checking of the needed flow into new productive values. This was a case of simple arithmetic which ought to have been apparent. *If all of the earnings of buildings must be used to carry high interest burdens, while little or no consideration is given to reducing or amortizing capital debt, it is obvious that these accumulated interest burdens must eventually break both the earning power of real estate and its ability to keep itself reproductive.*



#### RESTORING THE INVESTOR'S CONFIDENCE

Architects should recognize that the very nature of the industry to which they belong requires awareness and understanding of economic forces. The men who plan the construction of the future must not allow the orderly processes of construction to be interrupted periodically as a consequence of irresponsibility in calculating the terms for the use of finished buildings. Therefore, it is essential that architects recognize the economic implications of construction and consider the organism of design as well as its aspect.

Had the generation of architects who inconsiderately rode the boom of the 1920s realized this, the great hotels, apartments, and other structures which they designed might not have gone through bankruptcy and been taken back by mortgagees at 50% of their cost. Had we been wiser then, there would not be so many doubts today about the wisdom of "investing" in products of the building industry.

The same investors who eagerly financed construction at 6% and better between 1921 and 1928, are wary of today's investment market, which offers 4% and  $4\frac{1}{2}\%$ . Before the war they were "temporarily" putting their funds into "Governments," which offer a return of from  $\frac{5}{8}$  of 1% to a top of 3%. They were awaiting for a scarcity of money and a scarcity of shelter facilities, in the hope that interest rates might again advance and that it might again seem "profitable" to invest in mortgages. Such institutional funds as have been available at 4% now require definite contracts for amortization. The great expansion of war plants has brought a demand for war housing. Private industry has been challenged to come forward and demonstrate that it could do as well as, or better than, governmental agencies. Unfortunately, private industry has been greatly hampered by rules imposed to conserve critical material, but there has also been a great dearth of equity money.

There are still plenty of people who believe that it is not the province of the architect to worry about equities or to meddle in financial matters. It is contended that it is his function merely to give the best professional service when asked for. It is always possible for a few architects with outstanding ability plus the knack of salesmanship to ferret out opportunities. Such architects may get themselves work and continue to live on cream even though the great mass of the profession may, for some time to come, languish for lack of work or be compelled to accept makeshift employment.

To restore their usefulness, it is the concern of architects to find out where equities have vanished to and to discover how confidence may be restored after the war. This cannot be accomplished by waiting for something to happen, or by depending upon some one else to act, or even by calling loudly for governmental assistance. It is possible that some remnants of equities may exist. The architect should master the factors which have influenced the condition of these equities and he should set his own ingenuity and creative ability to work to improve them.





Almost all architects are agreed that the unfortunate conditions which have confronted real estate and the building industry are due to lack of co-ordination in planning. Values have been hurt by the unguarded ravages of obsolescence and depreciation. An individual building is too small a unit for successful planning. Although architects have united in advocating advance planning, and group and neighborhood planning, they must confess that no satisfactory method has yet been devised whereby the principles in which they believe may be put into practice.



#### GROUP PLANNING MUST COME

Even with the best of intentions, the architect who tries to fit the design of a particular building with the design of a neighborhood, soon discovers that he has no client to work for who will retain him on the basis of group design. Individual owners may recognize the advantages of a co-ordinated neighborhood plan, but in the past they have had no way of securing compliance from recalcitrant neighbors who saw greater immediate advantage to themselves through holding out in order to realize a "nuisance value."

Lack of group planning has in many cases increased the rate of obsolescence, making it nearly impossible for individual property owners to deal with the problem of urban blight. Many believe that after the war the practical remedy will be to call on our public authorities for governmental action to take over blighted districts and rebuild them with housing projects limited to the lowest income group. However, all blighted areas cannot be rebuilt solely for persons of the lowest income and by the use of public funds.

Others are advocating that a very large Federal fund (perhaps 40 billion dollars) should be set aside as a subsidy to buy up property in the blighted areas found in most of our larger cities. They feel that if these properties could once be assembled through Federal purchase, they could

be turned back to the municipalities who might, in turn, rent them to promoters for improvement.



#### SUBSIDIES VS. PRIVATE COOPERATION

In contrast to those who advocate high Federal subsidies, there have been small groups working in various States for the enactment of a type of legislation which permits local property owners, under the supervision of City Planning Commissions, to exercise mandatory control over recalcitrants, once the majority (51%) has agreed upon a group plan for neighborhood redevelopment. New York was the first State to enact an "Urban Redevelopment Corporations Law" (1941). This was drafted by a special committee of the Merchants' Association (now known as the Commerce and Industry Association of New York). Its purpose was to restore initiative and the power of self-help to groups of property owners and investors.

Through the grouping of individual equities of questionable value and the merging of the equity and the mortgage interests, as is now permitted by collateral legislation, a great step in advance will be taken toward the restoration and appreciation of equity values. The architect's vision and his understanding of co-ordinated planning should do much to increase the ability of real property interests to work their way back to a sound economic basis. In this type of work, the architect should be qualified to lead.

Several other States, including Illinois and Kentucky, have passed Urban Redevelopment legislation. In 1942, a second law, known as the Redevelopment Companies Law, was passed in New York. This second piece of legislation was designed not so much to give initiative to depreciated properties as to liberate institutional funds for investment in reconstruction work. The general focus of the law and the type of control provided differed from the earlier legislation whose purpose was to provide group initiative.



## RUG AND CARPET MERCHANDISING

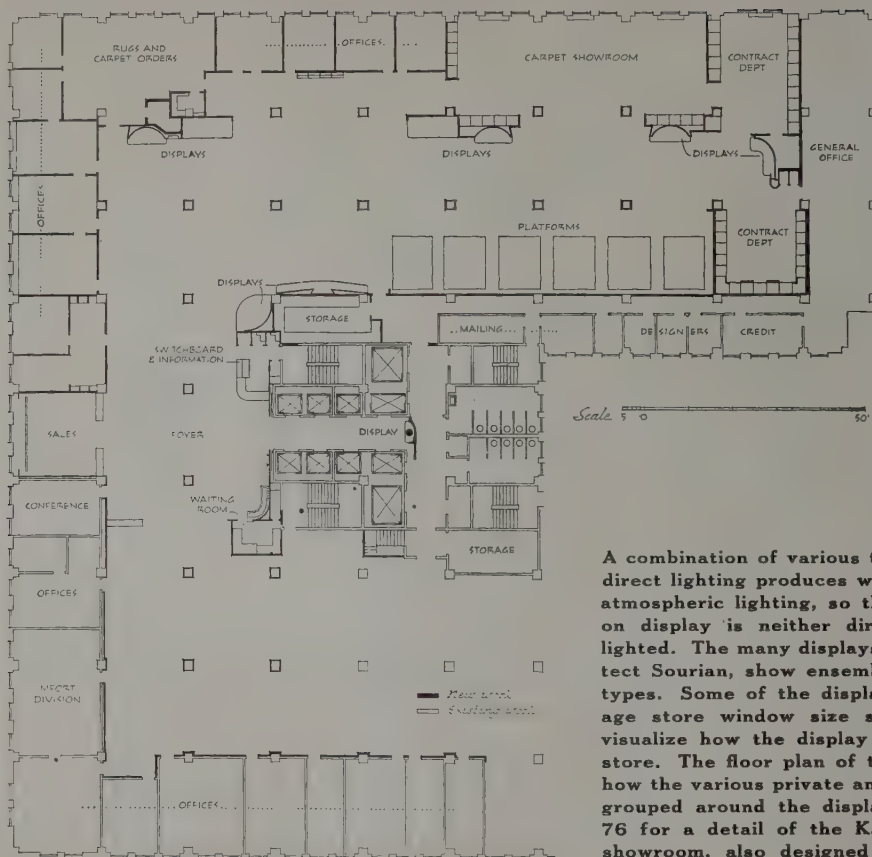
Walls of bleached walnut plywood, textured plywood in all display areas, carpeted floors, and several types of direct and indirect lighting (see Selected Details, page 75) add dignity to the remodelled wholesale showroom of A. & M. Karagheusian, Inc., New York, makers of Gulistan car-

peting. Above is the Entrance Foyer and Reception Room. Across-page is a view of the carpet showroom. The built-in sample bins in the background were specially designed. Photomurals show the many buildings in which Gulistan products are used. (All photographs by Richard Garrison)





# ZAREH SOURIAN, ARCHITECT



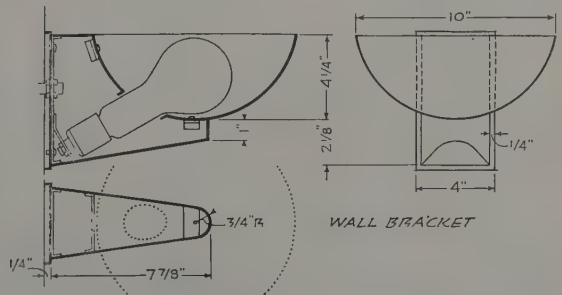
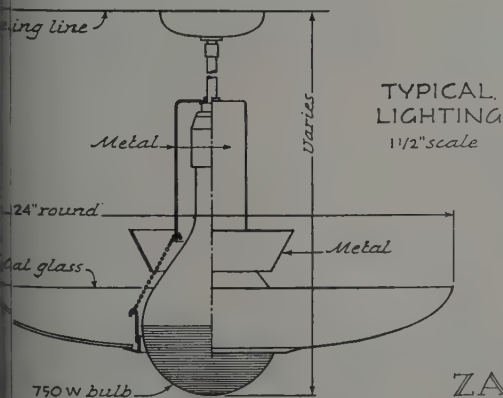
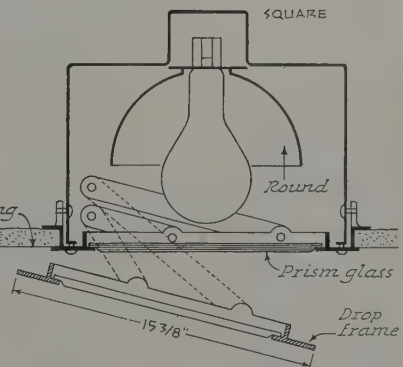
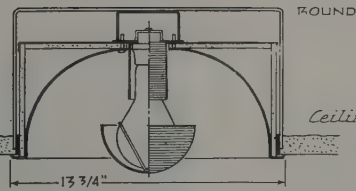
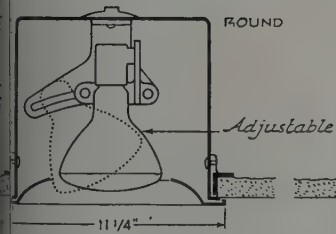
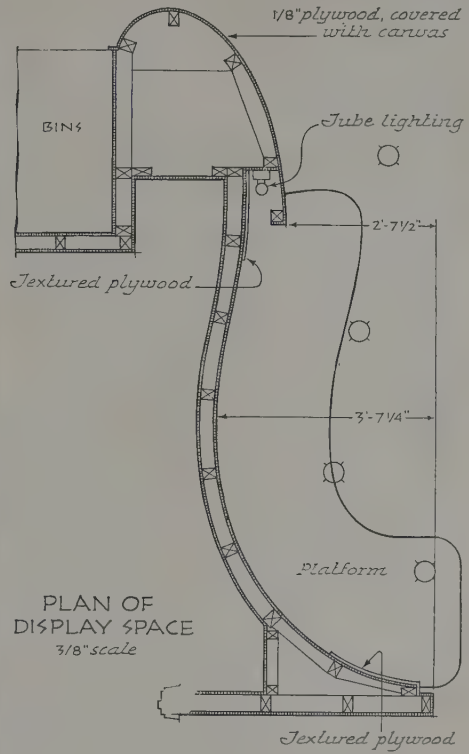
A combination of various types of indirect and direct lighting produces what might be termed atmospheric lighting, so that the merchandise on display is neither directly nor indirectly lighted. The many displays, designed by Architect Sourian, show ensemble groups of carpet types. Some of the displays are of the average store window size so that buyers may visualize how the display would look in their store. The floor plan of the showroom shows how the various private and general offices are grouped around the display area. (See page 76 for a detail of the Karagheusian Chicago showroom, also designed by Zareh Sourian)





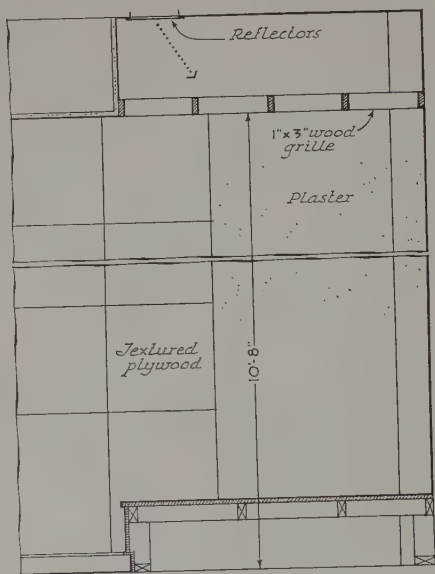


RICHARD GARRISON

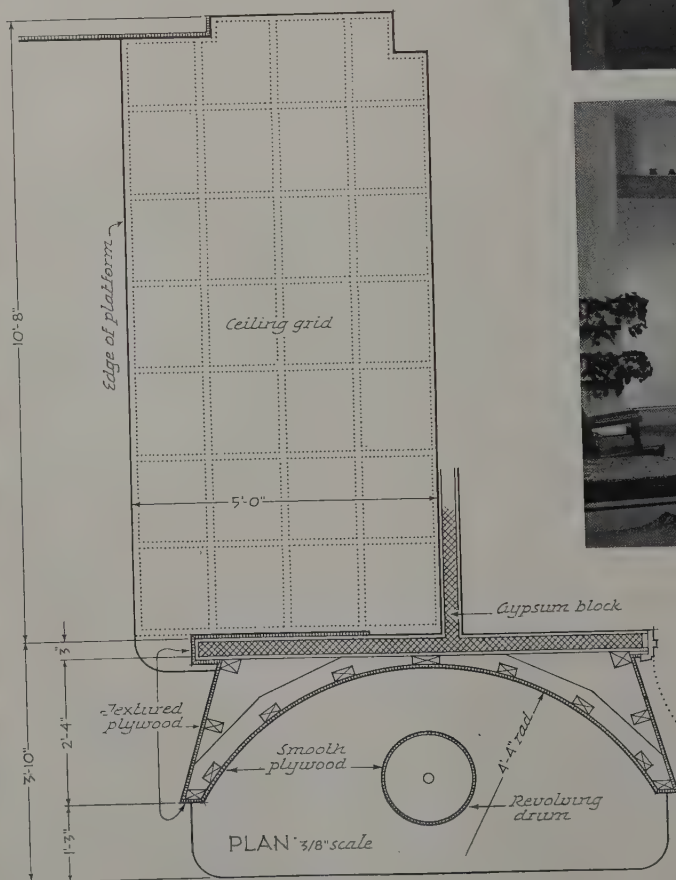


ZAREH SOURIAN... *Architect*

# SHOWROOM LIGHTING



SECTION  $\frac{3}{8}$ " scale



PLAN  $\frac{3}{8}$ " scale

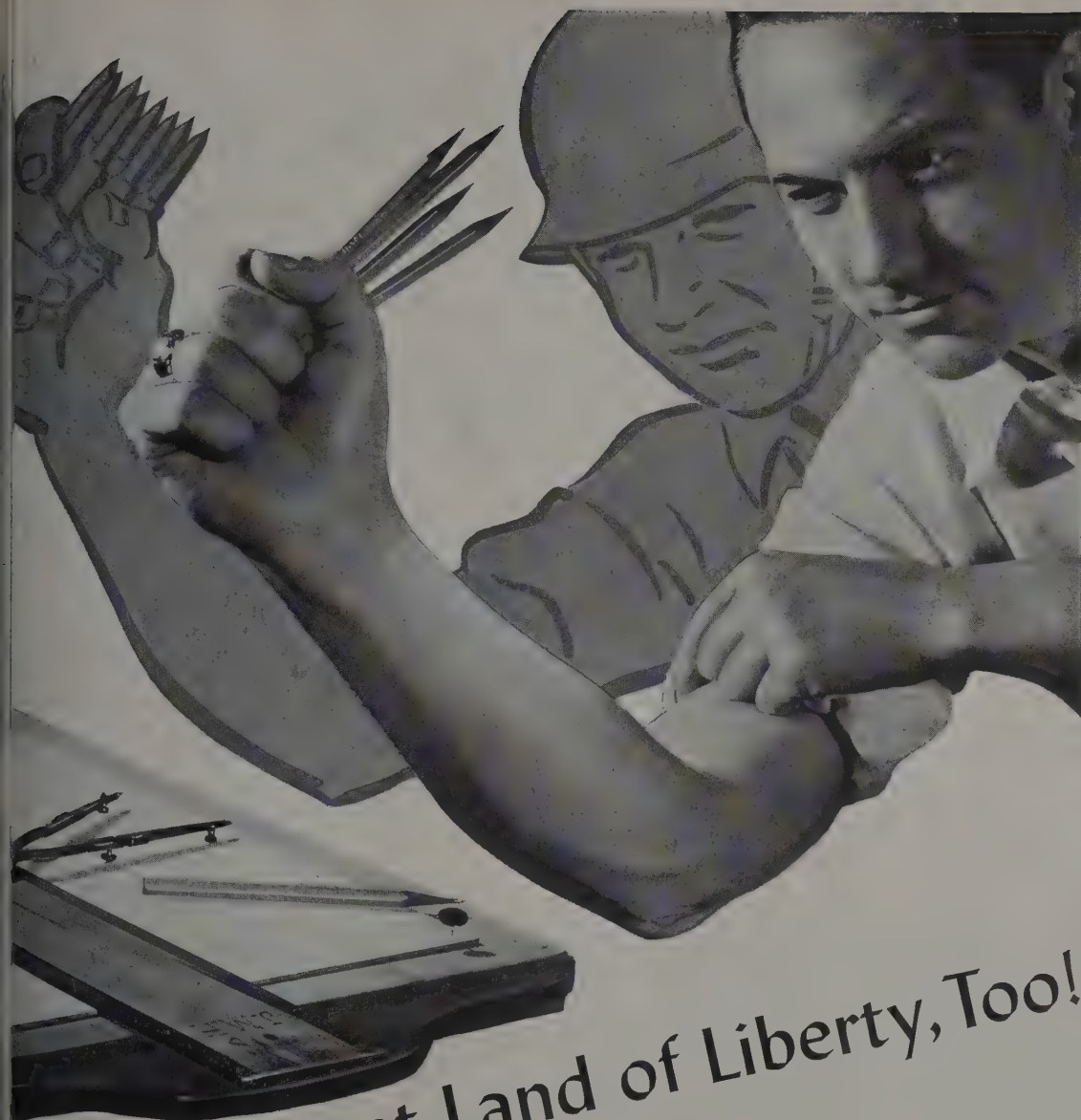


HEDRICH - BLESSING

EDGE OF  
PLATFORM

ZAREH SOURIAN.  
*Architect*





It's MY Sweet Land of Liberty, Too!

"Not all of us can have the privilege of fighting our enemies in distant parts of the world!" True, but the man at the board helps hasten the knockout blow by turning out, speedily and accurately, working drawings required "yesterday"...In war as in peace Typhonite ELDORADO is the team-mate of American engineers, architects and draftsmen. Fast as the fastest hand, sure as the surest hand, strong as the strongest hand, Typhonite ELDORADO points the way to Victory.

Pencil Sales Dept. 167-J10, JOSEPH DIXON CRUCIBLE CO., Jersey City, N. J.

**ELDORADO**

DIXON'S TYPHONITE ELDORADO-- HB

# COMPETITION ANNOUNCEMENTS



## CAMPUS COMPETITION

The Jury of Award which gave first prize to SUREN PILAFIAN for his design of a new student building and campus for Wayne University, Detroit (see September issue, page 82), recommended that Mr. Pilafian be invited to restudy his design, since his exterior designs were not completely satisfactory either as abstract architectural forms or as expressions of the intent and character of the University. The two models shown here were made for the purpose of satisfying the Board of Education that a good-looking building could develop from the competition design.

## BRIDGE DESIGN

Another annual bridge design competition, open to bona fide registered students of architecture and structural engineering in recognized technical schools of the United States and its possessions, has been announced by the American Institute of Steel Construction. Cash prizes of \$200, \$100, and \$50 for designs placed first, second, and third respectively, will be offered.

The subject of the competition is a steel grade separation carrying a highway over the four-track main line of a railway, a navigable canal, and a dual four-lane highway.

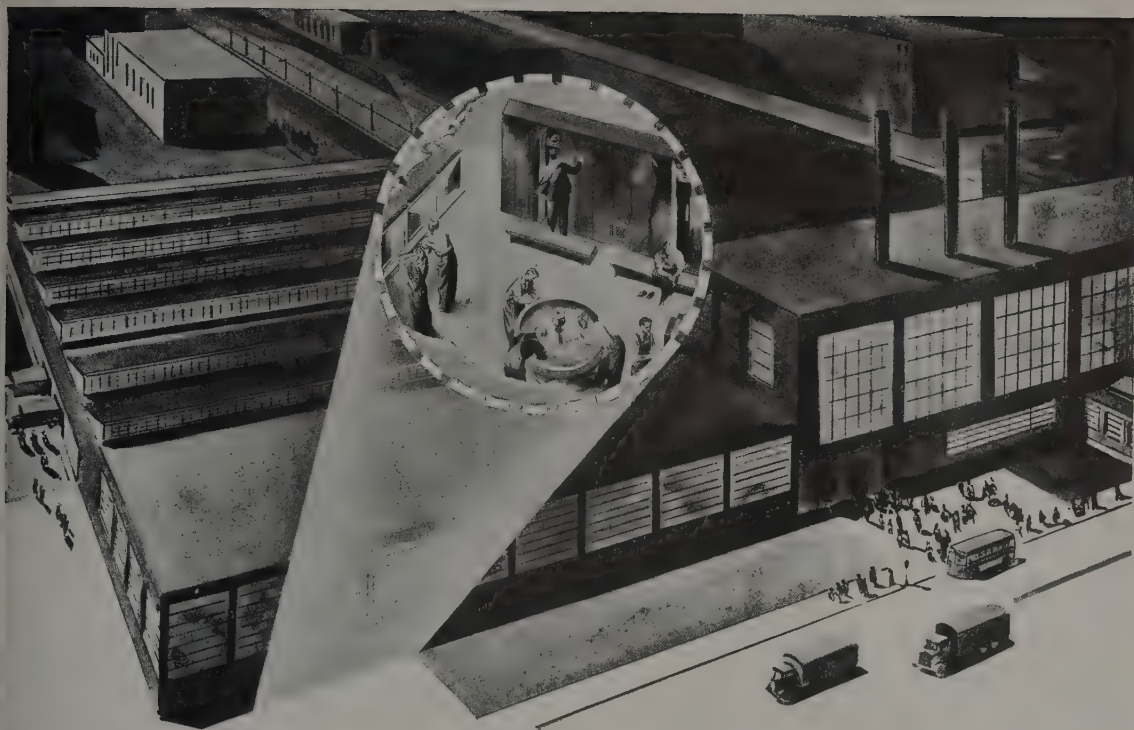
Closing date for the competition is February 8. Further details may be had from the Institute at 101 Park Ave., New York.

For other competition news, see pages 33-36 for the announcement of the NEW PENCIL POINTS - KAWNEER competition for a design of "The Store Front of Tomorrow"; and page 32 for the name of the \$500 War Bond winner in the NEW PENCIL POINTS competition for the best name suggested for the magazine, as it is now being published.

Photographs on this page show revised scale model of proposed new Student Center Building at Wayne University.







# "HEALTH ZONE" of the modern plant

## ... clean, well-equipped washrooms

Figures based on reports of the U. S. Public Health Service show that American Industry loses approximately *one week's work a year due to illness.*

Much of this can be prevented. Clean working conditions, and particularly clean washrooms with plenty of soap, hot water and individual tissue towels, do much to prevent the spread of disease. Clients are realizing more and more the importance of adequate washroom facilities in any company health program.

For this reason, architects are giving increased attention to the design of washrooms in modern industrial buildings. The number

of washrooms needed is accurately estimated, locations are chosen for convenience, and scientific placing of fixtures insures efficient use and a smooth flow of traffic.

Such washrooms are literally "health zones." They pay definite dividends to employers by keeping workers on the job. The Scott Paper Company can help you plan them.

The second edition of the Scott Washroom Advisory Service Manual, just off the press, gives basic washroom layouts and suggestions that have proved practical in all types of industrial buildings. Copies sent on request. Just write Scott Paper Co., Chester, Pa.



# SCOTT

WASHROOM  
ADVISORY SERVICE

## BOOKS

**MILL AND MANSION; A STUDY OF ARCHITECTURE AND SOCIETY IN LOWELL, MASSACHUSETTS, 1820-'65**, by John Coolidge (Columbia University Press, New York, 1942, 261 pages, 92 illustrations, \$3.75).

With enviable competence, the Author pounces upon the now helpless and seemingly hopeless mill-town of Lowell, and by tracing the Puritan philosophy and industrial aspirations and financial ambitions of the new Yankee Hierarchy, he conducts us upon an intensive tour of this booming settlement at various periods of its phenomenal expansion, and winds up by emphatically stating that, since the harassing problem of Industrial Housing was then solved in a manner satisfactory to all, it can now, in the Twentieth Century, be solved only by resolving it into a purely American formula, expressive of the American Way of Life.

"It was comprehensive in conception; it was efficient in operation; and it conformed to folk custom. It is these very qualities which are the ideal of every designer of housing today." This 19th Century housing achievement at Lowell is both remarkable for itself and significant for us today, faced with comparable problems, be-

cause of the "social forces which once refused to permit the existence of slums, and which must be called into play again if we are ever to rid ourselves of that evil . . . at that time, it was recognized that proper housing was not a reward won by the able, but the right of all . . . Government intervention [now] is raised above the level of political expediency only if decent shelter is recognized on the same terms as decent education, as a birth-right, not as a privilege. This is indeed the only democratic point of view."

In times like these, it is absolutely essential to know *what* constitutes the American Way of Life, both historically and contemporaneously, before we can even know *what* we are basically defending. One of the values of a Book like John Coolidge's, dealing with specific American problems and phenomena of a Century ago, lies in the repeated assertion that our contemporary ills, even as our previous ones, can and must be treated, not as isolated political experiments, but as integrated social institutions.

Besides the wealth of historical data so ably presented in toto, I find the first parts of the Chapters upon The Impact of Romanticism, 1835-'45; Fully Romantic Architecture, 1845-'65; and the Conclusion especially worthy of attention, to say nothing of his copiously encyclopaedic Appendices and

Notes. The illustrations cover Lowell's rapid progress with complete adequacy. If this is *not* a timely Book, as the Reviewer of mine upon "Town and Davis: Architects . . ." says it is not, then *none* illuminating the potent theme of the American Way of Life is at all timely!

ROGER HALE NEWTON.

**FLUORESCENT LIGHTING MANUAL**, by Charles L. Amick (\$3.00, 312 pages 6" x 9"—McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York)

The whale oil lamp and the crystal candelabra have almost disappeared into limbo. It is amazing that it has taken 40 to 50 years from the invention of the incandescent electric light to get cured of the idea that a light source should be reminiscent of the 1600's. No doubt the greatest impetus to planned and architectural lighting has been the development of the fluorescent lamp. In Charles L. Amick's *Fluorescent Lighting Manual* we have a discussion of fluorescent which is exhaustive without being exhausting. This is a remarkably straightforward and understandable discussion of what has been previously handled either incompletely or confusingly—or both. The book treats of the basic principles of the lamp and its operation, gives data on the proper installation and servicing, covers the selection of fixtures, design, spectral quality, a review of the problem of seeing, and has a chapter on lighting economics. D.G.

(Continued on page 86)

**BUILDING**, the Official Journal of the Master Builders' Federation of Australia, presented in its July 24 issue "The Home of 1942" reproduced here, with the following caption: "At all times one naturally expects an architect not to follow along the beaten track; but when it comes to designing his own home, when his style is not curbed to conform to the set ideas of the client he is given the opportunity of expressing his originality as he desires. This home carries out that part of an architect's training of form follows function." Also presented in the issue is the Australian General Hospital, Australia's largest hospital



## PERIODICALS

### ENGLAND

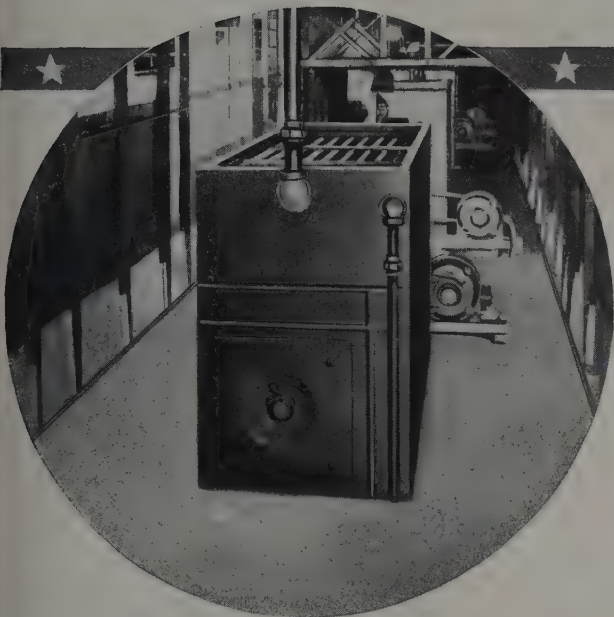
#### THE ARCHITECT AND BUILDING NEWS

Just a year ago the Ministry of Agriculture appointed the Scott Committee to consider the conditions which should govern buildings and other construction developments in country areas consistent with the maintenance of agriculture and, in particular, the factors affecting the location of industry. QUESTOR, in commenting on the Committee's report, criticizes the none-too-complete job as "pathetically cumbersome and amateurish." Said he, "The job cannot be adequately done by a committee receiving masses of evidence, much of it consisting of little more than expressions of opinion."

(Continued on page 82)



# 46,500 pounds of scrap metal salvaged by change to unit heating



## John R. Evans and Company Installs Unit Heating for Drying . . .

MANY ADVANTAGES result from the use of Carrier unit heating equipment. Take for example, the recent installation at the plant of John R. Evans and Company, Camden, New Jersey, leather manufacturers.

Five Carrier Heat Diffusing Units weighing only 3 tons replaced the former drying equipment which weighed 23 tons, thus releasing some 46,500 pounds of scrap metal for war uses. In addition the new Carrier equipment uses only 25 H.P. for air circulation as compared with 60 H.P. required by the old equipment. Less time is needed for drying hides and an approximate saving of 5% in steam consumption is effected.

Today, these advantages are more important than ever to industry. Carrier will gladly discuss the application of unit heating in your plant. Call your Carrier representative or write to Carrier Corporation, Syracuse, New York.

(Above) CARRIER HEAT DIFFUSERS at plant of John R. Evans and Company, Camden, New Jersey. Air is drawn through louvers at top of tunnel by 4 of the units, heated and blown into a plenum chamber beneath the tunnel.

(Right) DRYING TUNNEL through which hides pass. One of the unit heaters is arranged to supply air from above and discharges it into top of tunnel for thorough drying of hides.



The Navy "E", one of the U. S. Navy's most coveted honors, was awarded to Carrier Corporation for excellence in war production.

# Carrier

## Unit Heating

CARRIER CORPORATION, Syracuse, N. Y.

Desk J37

Please send free copy of your Unit Heating Catalog including uses, ratings and diagrams.

Name .....

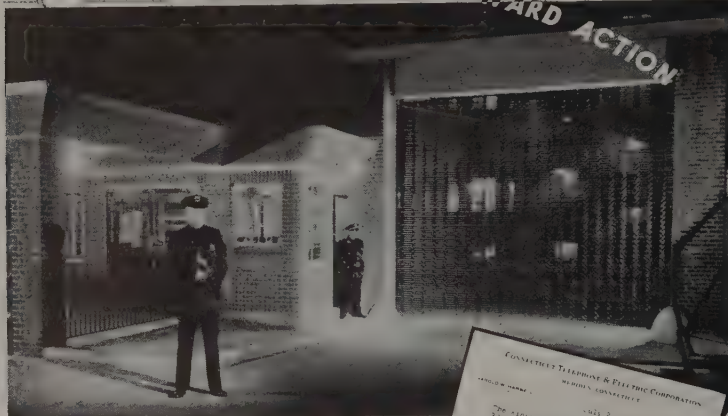
Company .....

Address .....

City .....

# "FORBIDDING BARRIERS"

WITH EFFICIENT COILING UPWARD ACTION



Kinnear Rolling Grille Guards  
Entrance at Connecticut Telephone  
and Electric Corporation

There's more than just tough, rugged protection back of the unqualified approval won by the Kinnear Rolling Grille installed at the main gate of this well-known plant. There is also the smooth, rapid efficiency of coiling upward action — the same space-saving, time-saving, operation made famous by Kinnear Rolling Doors. The grille is composed of strong metal rounds assembled in rugged links — a type of fabrication assuring a maximum of flexible toughness. When lowered, the grille defies intrusion; but for "approved passage" it is quickly and efficiently coiled above the entrance, out of the way of traffic. A heavy, tamper-proof, cylinder lock affords extra protection where entrances are not under continuous guard. And with motor operation (optional) the grille can be opened and closed from any number of strategic points by merely touching a convenient push button.

This installation is out-of-doors, but all of the advantages found here can be your aid for client-satisfaction in a wide variety of uses, indoors or out. In windows, doorways, corridors, stairways, and other building openings, Kinnear Rolling Grilles block out intruders when closed, and have the extra advantages of permitting clear vision, passage of light, and circulation of air. Built any size. Write for complete details today.



## OTHER KINNEAR GRILLE APPLICATION

The rugged "rounds and links" assembly of the Kinnear Rolling Grille is here used as a swinging barrier . . . a swinging grille that fits a multitude of today's needs for protection of restricted areas . . . another example of Kinnear's adaptability to client-needs. The unique construction of the grille gives it exceptional strength and beauty without bulkiness, and provides the ideal way to prevent trespassing at a variety of strategic points.

THE KINNEAR MFG. COMPANY  
1900-20 FIELDS AVE., COLUMBUS, OHIO

SAVING WAYS  
IN DOORWAYS

**KINNEAR**  
ROLLING GRILLES

BOOKS AND  
PERIODICALS

(from page 80)

## ARCHITECTURAL DESIGN AND CONSTRUCTION

In an article entitled, "What Is Being Done About Housing?" the editors define the term housing as the provision of homes and their environment as a community. They recommend that preparatory to post-war development the functions of the British Ministry of Health be extended to secure: (1) co-ordination of housing finance, both public and private, to provide for flexibility of financial provisions; (2) co-ordination of housing policy and practice, with town planning, in close conjunction with the Central Planning Authority; (3) experiment and research; (4) the means for development of housing on a large scale where necessary.

## THE ARCHITECTS' JOURNAL

Under the title, "The Hub of the House," the Association for Planning and Regional Reconstruction has issued a report dealing with the kitchen, which is printed in full in the August 27 issue. The report shows alternate arrangements of standard-size fittings and equipment in floor areas of different shapes and sizes, planned exclusively for the provision of meals. Plans of "living-in" and "independent" kitchens also appear in the report.

Unlike THE ARCHITECT AND BUILDING NEWS (see page 80) which commented on the Scott Report, the August 20 issue of THE ARCHITECTS' JOURNAL merely digests the more important sections and summarizes the chief recommendations. In discussing the training of planners and architects the report said in part:

"We are not satisfied that the training of either planners or architects is adequate for the work they will be called upon to perform if our recommendations are adopted. We are of the opinion that many employed as 'town planners' are inadequately trained in the broader aspects of their work, especially in their knowledge of agricultural and rural matters and in their appreciation of landscape and landscape architecture. We are of the opinion that many architects have paid inadequate attention to the design of rural houses and to the design of village or town units rather than of individual dwellings or other buildings. We recommend that the universities, colleges and professional institutions concerned draw up comprehensive schemes for the training of young men and women to fulfil the requirements of the offices indicated in our proposals. We attach great importance to a very high standard being required and maintained for professional qualifications."

(Continued on page 84)



# NO INKING - IN . . . CUT TIME AND COST OF BLUEPRINTS

That's industry's urgent demand on the drafting room these days. VENUS TRACING Pencils are the answer. They give perfect blueprints and save the time and cost of ink.

A member of the VENUS DRAWING Pencil family, VENUS TRACING Pencils are now made in 4 special degrees. There's T1, the softest for smoother surfaces. T2 and T3. Now we have added T4 for the hard tooth of some of the heaviest tracing cloth and making papers.

VENUS TRACING Pencils draw angles, block lines that erase cleanly and do not smear or smudge. That means, clean, crisp, clear blueprints, free from ghosting or "ghosts".



Send for samples of these  
pencils. We'll drop us a line.

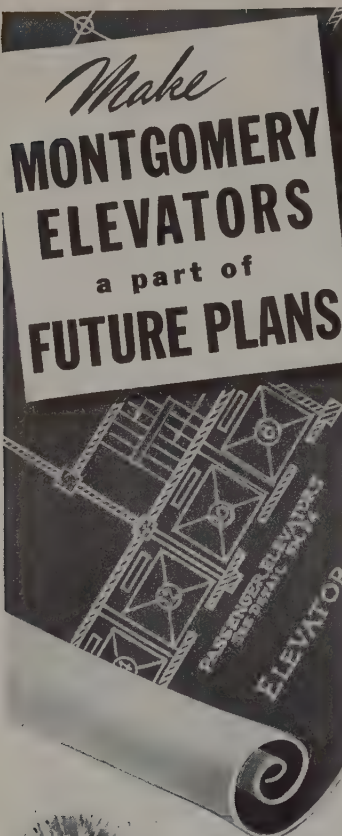


**VENUS**

*The AMERICAN Drawing Pencil*

AMERICAN-MADE FOR 35 YEARS

AMERICAN PENCIL COMPANY, Dept. A 5, 500 Willow Avenue, Hoboken, N. J.



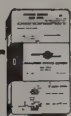
Today, building plans prepared for immediate construction are for the most part related to war—the science of destruction. When building restrictions are relaxed at the end of this conflict and we again start constructive rather than destructive building, new projects of all types will be required. Many of these projects are on your drawing boards today. Where freight or passenger elevators are required, specify Montgomery. Investigate Montgomery's "Elevator Planning Service" for assistance in solving special elevator problems. There is no obligation!



will be required. Many of these projects are on your drawing boards today. Where freight or passenger elevators are required, specify Montgomery. Investigate Montgomery's "Elevator Planning Service" for assistance in solving special elevator problems. There is no obligation!

**DON GRAF DATA SHEETS**  
on Passenger and Freight Elevators. Use the coupon to get your FREE set!

**MONTGOMERY ELEVATOR COMPANY**  
MOLINE, ILLINOIS



**FILL IN — MAIL TODAY!**

Montgomery Elevator Co.  
25 20th Street, Moline, Ill.  
YES! Please send me FREE Don Graf Data Sheets on Montgomery Passenger and Freight Elevators.

Name .....  
Firm Name.....  
Address .....  
City..... State.....

BOOKS AND PERIODICALS

(from page 82)

## CANADA

**JOURNAL, ROYAL ARCHITECTURAL INSTITUTE OF CANADA**

The entire September issue is devoted to the Brave New World which the Canadian Institute hopes will emerge from the war. And not only is there considerable discussion of what the Canadian portion of that world should look like; there is much speculation on the architect's place in it. We are told on the contents page that "The Institute does not hold itself responsible for the opinions expressed by contributors," but the fact that the JOURNAL includes them indicates their importance. An interesting comparison can be made with our own chaotic lack of planning for war's aftermath.

## UNITED STATES

**JOURNAL, AMERICAN SOCIETY OF ARCHITECTURAL HISTORIANS**

The April, 1942 JOURNAL is a special issue devoted primarily to four papers on the contributions of architectural history to architectural education. It is good stuff, and it also includes some gems of unintentional wit: a current bibliography of architectural history lists, as Item No. 122, "an unsuspected source for architectural history," carefully labelled, in parenthesis, "humorous."

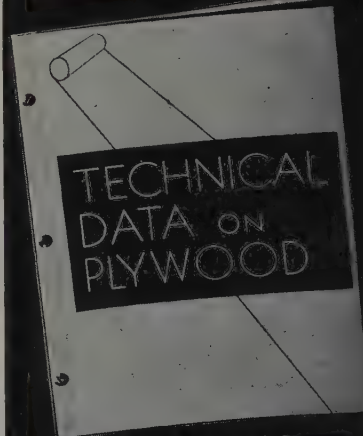
The JOURNAL is mimeographed, for distribution chiefly to Society members.

## INTERIORS

Perhaps, some day, "interior designers" will learn that architecture as they understand it—if they do—and "interior design" are part of the same problem: provision of satisfactory shelter, with satisfactory appointments and satisfactory relations with its environment, for a set of human activities. Perhaps, some day, architects will be ashamed to call part of the job architecture and leave the rest for different geniuses to produce. Perhaps, some day, clients (meaning the public, lord help 'em) will think likewise. That day exists only in dreams.

Meanwhile, we have the September issue in which much space is given to architecture, much to furniture and interior decoration (some designed to meet priorities shortages, some not); and much given, at least by implication, to such choice items as a statuette of a sleepy eider duck, which is now becoming extinct.

**Your file should contain this new handbook!**



**Write for your free copy today!**

**JUST** published are the initial chapters of a new engineering handbook on Douglas Fir Plywood. This is the first time that much of the data on the mechanical properties of Douglas Fir Plywood contained in them has been available to the architect and engineer. You will find that this data will make your designing, specifying and working with plywood easier than ever before.

This handbook is in loose-leaf form, and additional chapters will be sent you as they are completed. Write now for your free copy of "Technical Data on Plywood". Douglas Fir Plywood Association, Tacoma, Washington.

**DOUGLAS FIR PLYWOOD**

*Real Lumber*  
**MADE LARGER, LIGHTER  
SPLIT-PROOF  
STRONGER**

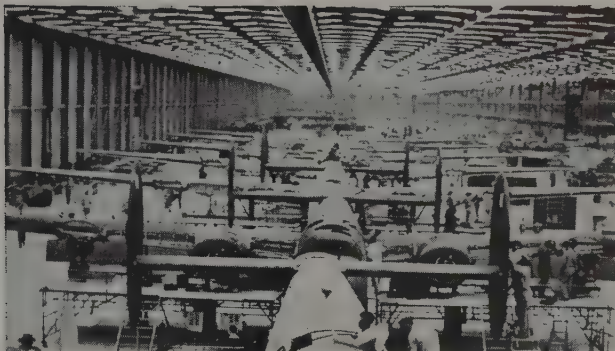
"A PRODUCT OF AMERICA'S ETERNALLY REPLENISHING FORESTS"





# WAR PRODUCTION SPEEDED BY GIANT NEW LIGHT REFLECTOR

Floor that reflects light increases efficiency  
and reduces accidents



• White cement floors on which Consolidated Aircraft Corporation is assembling B-24 bombers. The white cement surface throws 61% more light to the under side of bomber wings and fuselages, and 20% more light on vertical surfaces than does grey cement surface in adjacent areas in same plant. Designed and built by The Austin Company.

Right under  
your feet...  
there's a  
new source  
of light —  
**YOUR FLOOR**

IF YOUR FLOORS ARE WHITE,  
YOUR PLANT GETS MORE LIGHT

**L**IGHT-REFLECTING FLOORS, made with Atlas White cement, are acting today as giant reflectors and diffusers of light in essential war plants. They chase shadows from production and assembly lines. They reflect much more light to the under side and vertical faces of work. They help employees operate with greater speed and safety . . . avoid errors and spoilage of materials. They sharpen the vision of workers who have defective sight . . . of older men and of new workers who are working at a machine for the first time.

White cement floors in aircraft plants for Boeing, Consolidated, Douglas and North American are showing their superiority over darker floors. Look into them, either for new buildings or as re-topping for old floors. In installations already made they have repaid their initial cost quickly.

They can be cleaned and kept white simply and economically.

In factories, food plants, warehouses, hangars, hospitals, offices, apartments—in corridors, basements, stair wells—wherever increased production, material conservation, extra lighting, sanitation and safety are important, it will pay to get **LIGHT FROM FLOORS.**

Write for a new book, "**LIGHT FROM FLOORS.**" It tells about the advantages of better illumination and gives detailed information on the construction, maintenance and value of light-reflecting floors made with Atlas White cement. Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York City.

**OFFICES:** New York, Chicago, Philadelphia, Boston, Albany, Pittsburgh, Cleveland, Minneapolis, Duluth, St. Louis, Kansas City, Des Moines, Birmingham, Waco.

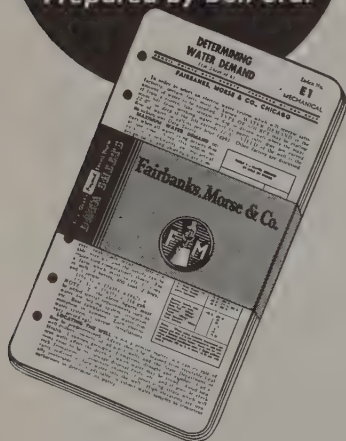
PP-F-4

**LIGHT-REFLECTING FLOORS**  
MADE WITH ATLAS WHITE CEMENT



# FREE! Water System DATA SHEETS

Prepared by Don Graf



• What capacity will be required of a water system for this home or farm? Which of four pump types will serve best? Can the pump be placed off the well rather than directly over it? What size should the pressure tank be? What are the space requirements of the various systems? The electrical specifications? The lift limits? The effects of altitude and well depth?

You'll find the answers to all these and other questions about water systems on six recently published Don Graf data sheets. Send for a set. They're free.



Clip the Convenient  
Coupon

Fairbanks, Morse & Co.,  
Dept. J188  
600 S. Michigan Ave., Chicago  
Please send me my free set of six Don Graf  
data sheets on water systems.

Individual.....  
Company.....  
Address.....  
City..... State.....

**FAIRBANKS-MORSE & CO.**

Manufacturers of Precision  
Equipment for 112 Years

## BOOKS AND PERIODICALS (from page 80)

**ENGINEERING DRAWING AND MECHANISM**, by Harold J. Brodie (\$2.25, 241 pages 8 1/2" x 11"—Harper & Brothers, 49 E. 33rd St., New York)

According to the president of a large chemical industrial plant, architectural draftsmen who have had good basic training make better engineering draftsmen in a short time than many mechanical draftsmen. It was the considered opinion of this executive that architectural men are more intelligent and learn the elements of mechanical drafting very quickly. Harold J. Brodie's book on engineering drawing is, therefore, of considerable interest to architectural men at this time. The text is designed to provide the basic knowledge and skill in drafting which is essential to the training of draftsmen on machine tools. The subject matter has been evolved through 20 years of actual use and has resulted in a textbook of outstanding practicality, clarity, and conciseness. Generous use of illustrations and readable text combine to make this book ideal for the man who wishes to learn by himself.

As a matter of fact, the trend in architectural drawing has been toward the precision of engineering draftsmanship and we think it is a healthy trend. Even though an architectural draftsman does not plan to broaden his skill to embrace mechanical drafting professionally, a careful study of this textbook would give him a greater competence in his own line. **D.G.**

**TECHNIQUE OF PLYWOOD**, by Charles B. Norris. (249 pages, 4 5/8 x 7 5/8", illustrations, tables, \$2.50. I. F. Laucks, Inc., Seattle, Wash.)

A distinct need for a fundamental approach to the properties of plywood, particularly its engineering properties, has arisen. No other wood product has come to the fore so rapidly within the past few years nor has found such a multiplicity of uses.

Mr. Norris has performed a service to the users of plywood by collecting into this volume the results of his years of analysis and study of plywood's engineering properties. Beginning with the fundamental properties of wood itself, he develops useful formulae and tables for the calculation of plywood in bending, tension, compression, shear, deflection and buckling; as flat and curved plate or sheet; restrained and freely supported; in large and small sizes. The fundamental strain circles are evolved and constants or

(Continued on page 88)



# 15 cents

J.S. STAEDTLER-INC-NEW YORK

NATIONAL DISTRIBUTORS:  
KEUFFEL & ESSER CO.  
NEW YORK



# ANNOUNCING a new non-metallic cabinet convector by TRANE



**Saves 80% of critical war metals yet is smartly designed, ruggedly constructed**

**N**ow a new convector that saves 80% of the precious metal used in the conventional radiator. Trane, at War Production Board suggestion, has developed a convector cabinet that utilizes non-critical substitutes. Yet many of the features that have made Trane Convectors the leaders in the field have been retained. There is the same even heat, fuel saving, attractive appearance, and cleanliness. The same mechanical bonded fin and tube coil construction. The same Trane Sloping Top feature.

The cabinet is fabricated of a durable non-metallic material, carefully reinforced by hardwood supporting members. Only metal used is a minimum of screws and brads. The easy-to-paint cabinets may be finished as desired when installed.

The steel heating element is carefully supported by means of hardwood corner posts eliminating any strain on the cabinet.

Two cabinet arrangements are available—one for wall suspension and the other of free standing floor type.

Available for war factories, army camps, hospitals, and similar military establishments, this new unit has already saved as much as 300 tons of precious metal on a single job. For further information call the nearest Trane representative or write The Trane Company, La Crosse, Wisconsin.

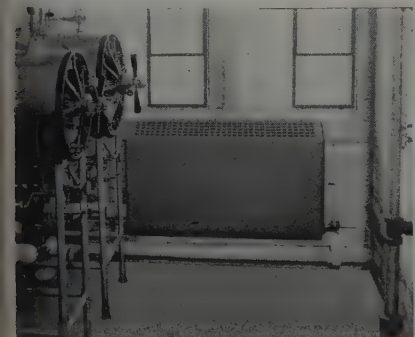
## THE TRANE COMPANY

LA CROSSE,  WISCONSIN

Also TRANE COMPANY OF CANADA LTD., TORONTO, ONTARIO  
HEATING • COOLING • AIR CONDITIONING EQUIPMENT FROM 85 OFFICES



*Skilled cabinet makers fabricate the casing of the new Trane Non-Metallic Cabinet Convector. Note the round grille design that permits positive air circulation without sacrificing cabinet strength.*



*Ideal for Army Hospitals, the Trane Non-Metallic Cabinet Convector will save thousands of tons of precious metals in jobs similar to this one.*

curves are derived for calculations at all angles to the grain.

Problems involved in hot and cold pressing, forming, and molding, as well as methods of achieving balance when plies are arranged at various angles to each other, or have different properties, are discussed and solved.

To keep the work within compact size, only the various formulae useful in solving problems are given. While the theorist may find this disappointing, the practical engineer will

generally find the formulae themselves sufficient for his purposes.

A section devoted to the handling of glues in plywood manufacture rounds out the general discussion.

ALBERT G. H. DIETZ

**BLUE PRINT READING AND SKETCHING**, 2nd Edition, by H. R. Thayer. (\$2.25, 135 pages, illustrated, plus 8 blueprints—McGraw-Hill Book Co. Inc., 330 W. 42nd St., N. Y.)

One of a series of textbooks for use in adult teaching, prepared by the staff

of the School of Engineering at Pennsylvania State College. The second edition, which contains two new chapters on orthographic projection, should provide a thorough drill for beginning students who wish to acquire familiarity in sketching and an ability to interpret drawings. The principles of engineering drawing (as an introduction to the study of blue prints common to the various branches of industrial production and building construction) are covered in a series of chapter lessons. A series of blue prints, found in the pocket attached to the back cover, forms part of the chapter lessons.

Students who are working in industry and are carrying on part-time study, and those adults who are preparing for jobs in the industry, should find this book useful. The special wire-binding keeps the pages flat, a convenience when one tries to keep a book open on the drawing table. A.E.G.

**1001 DISTINCTIVE BUILDING DETAILS**, published by Industrial Publications, Inc., Chicago, Illinois. (\$2.00, 9" x 12", 364 illustrations)

According to the press release of the publishers of the book, it is "composed entirely of photographs, gathered from



REMODELING PROJECT, LINCOLN WAY EAST  
MISHAWAKA, IND., C. J. MUMFORD, CONTRACTOR

## HOMES FOR 7 FAMILIES

Where One  
Lived Before



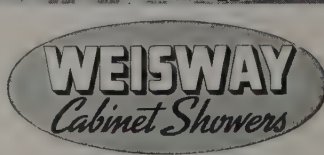
### WEISWAYS SOLVE THE BATH PROBLEM

● Once more Weisway Cabinet Showers give striking proof of their value in creating more living quarters out of present structures—quickly, economically.

When contractor C. J. Mumford acquired the big one-family "mansion" pictured at the top, to convert it to apartments, one of his chief problems concerned bath facilities. By the use of space-saving Weisways—complete, self-contained bath units—he was able to provide fully modern apartments for 7 families where only one had lived before.

The section of floor plan above shows how perfectly Weisways are adapted to this remodeling to create more living quarters from present homes. At right is one of the bathrooms. The new Weisway Model V, created to meet the critical material limitations of WPB is available on priority ratings of A-10, or better, for remodeling, for new war housing, and industrial bath requirements. Write for complete information:

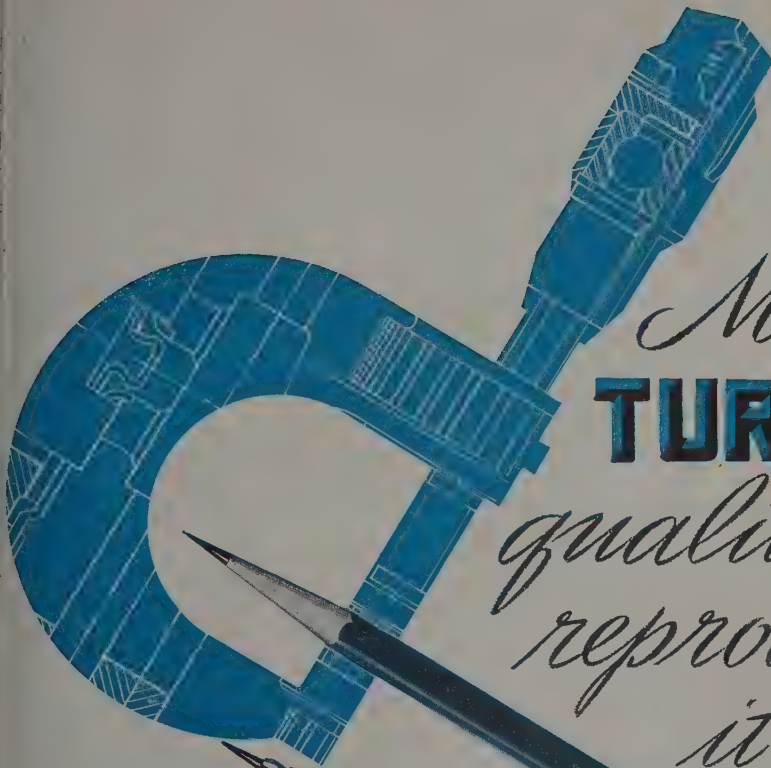
HENRY WEIS MFG. CO., INC. (Est. 1876)  
1021 Oak St., Elkhart, Indiana



all over the country showing the best ideas that have been developed in recent years to give houses character and charm. Architects and builders will find this book a mighty profitable addition to their present library.

None of the illustrations carry any credit lines to the architects or designers. The range of taste displayed in the plates runs all the way from very good to lousy. The accompanying illustration represents a weighted average for the 364 cuts. However, at the price placed on the book, man cribbers will find a high enough proportion of good ideas to warrant the cost. D. G.





Measure  
**TURQUOISE**  
*quality by the  
reproductions  
it makes...*



**THE QUALITY OF THE PRINT OBTAINED** from an uninked pencil tracing is the ultimate test of the lead that made it.

**TRY THE "PRINT TEST" FOR TURQUOISE!** Here's why it wins: Precision grading from 17 basic formulas of graphite and clay gives exactly the line you want from every inch of every pencil *every time*. Erasures come clean because opacity of line is obtained without depositing any chemical in the pores of the sheet. Eagle's patented super bonding process eliminates the frequent breakage and repointing which is so often the cause of variation in line. And \*Electronic graphite, refined down to particle sizes of 1 micron (1/25,000th of an inch), makes sharp lines so dense and uniform that they reproduce perfectly.



**EAGLE "CHEMI-SEALED" \*TURQUOISE** PENCILS • LEADS  
(SUPER BONDED) LEAD HOLDERS

**EAGLE PENCIL COMPANY • 703 EAST 13th STREET, NEW YORK**  
**EAGLE PENCIL COMPANY OF CANADA, LTD., TORONTO**

**SEND FOR A FREE SAMPLE**, naming this magazine, your regular pencil dealer, and the grade you desire. We'll send you a pencil or a **TURQUOISE** drafting lead of the same fine quality. Sorry, we can't send you the new **TURQUOISE** holder illustrated; but your dealer will be glad to demonstrate its precision-built perfection.

*Publications mentioned here are all 8½" x 11" unless otherwise specified and will be sent free of charge, upon request. When writing for any of the literature noted here, please mention THE NEW PENCIL POINTS.*

**Plywood.** Series of tables on "Strength and Deflection of Douglas Fir Plywood Under Loads Applied at Right Angles to Face," 16-pages. Charts are devoted to Douglas Fir plywood, but the method for adaptation to other woods is provided. Ten cents. I. F. Laucks, Inc., Seattle, Wash.

**Electrical.** Revised issue of Bulletin 1000 covers fusible service equipment and meter entrance switches for use in war housing and government housing projects. Square D Co., 6060 Rivard St., Detroit.

Also issued: Bulletin 4000—circuit breaker and multi-breaker entrance equipment.

**Instruments.** Catalog 4120, July, 1942, 12 pages, from Roller-Smith Co., Bethlehem, Pa., describes the firm's line of 3" and 4" panel instruments. Various types of cases are shown, dimensions and listings of shunts are given, and RT current transformers for ratios up to 500/5 are illustrated and described.

Also issued: Catalog 4550, August, 1942, 4 pages, describes two new precision balances for accurate and rapid repeated weighings of small particles ranging from less than 3 mg. to more than 50 grams.

**Electrical.** "Architect's and Engineer's Data Book," 178 pages, B-2161-B from Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., contains application, specification, and price estimating information on more than 100 different types of electrical equipment. Engineering data section includes such information as suggested adequate standards for residence wiring, oil and air circuit breaker application data, voltage drop curves.

**Aluminum.** New edition of "Machining Alcoa Aluminum," August, 1942, from Aluminum Co. of America, Pittsburgh, Pa. The 5¼x8¼" booklet, 48 pages, sets forth the general principles of machining aluminum and its alloys, indicates special practices, points out where practices and tools common to other metals may be used. Part I deals with general machine shop practice; Part II describes the practices employed in automatic screw machine operations.

**Flashing.** Two-page, blue-print type sheet, A.I.A. File No. 5-J, August, 1942, describes Flash-Lok blocks for outside and inside corner construction. Specifications, installation details. W. S. Dickey Clay Mfg. Co., Kansas City, Mo.

Also available: Blue-print type single sheet, A.I.A. File No. 5-K, August, 1942, on Lap-Lok wall coping. Dimensions, installation details included.

**Sewer Compounds.** 4-page bulletin on Kapco sewer compounds. Hot-pouring and cold-troweling types are discussed. A convenient table gives quantities of both types needed per joint for pipe sizes from 4 to 36". Keystone Asphalt Products Co., 43 E. Ohio St., Chicago.

**Asphalt Tile.** The various color combinations possible with Kentile asphalt tile are pictured in a 12-page catalog, in color, issued by David E. Kennedy, Inc., 58 Second Ave., Brooklyn, N. Y. In addition to illustrating the 44 color possibilities, the booklet (A.I.A. File No. 23-M) shows actual installations in homes and offices.

**Lawn Care.** No. 71 in the series of "Lawn Care" leaflets, issued five times annually by O. M. Scott & Sons, Marysville, Ohio, discusses the control of crabgrass in the average lawn. (These "Lawn Care" bulletins cover almost every lawn problem, including control of various weeds and pests, improvement of soils, use of lime, proper mowing and watering.)

**Diffusers.** 20-page catalog (A.I.A. File No. 30-J) on the various types of Aerofuse air diffuser outlets. Tuttle & Bailey, Inc., New Britain, Conn. Installation diagrams, tables for easy selection of any of the three Aerofuse types, dimension schedules, and engineering data are included.

**Elevators.** 10-page catalog, Re-301 (A.I.A. File No. 33) from Rotary Lift Co., Memphis, Tenn., illustrates and describes the firm's line of Oilraulic elevators. Of interest to architects are the two pages of general data and layout dimensions to help in formulating plans.

**Doors.** 1942 catalog (Bulletin No. 31, A.I.A. File No. 16-D) illustrates and describes the various types of steel rolling doors, wood rolling partitions, door operating equipment, fire doors and shutters, etc., made by Kinnear Mfg. Co., Columbus, Ohio. 40 pages.

**Q-Construction.** Details and photographs which illustrate the wide variety of adaptations of Robertson Q-units for marine construction are contained in 28-page catalog from H. H. Robertson Co., Farmers Bank Bldg., Pittsburgh, Pa.

Also available: 12-page catalog, including installation diagrams showing the ease with which telephone wiring may be installed through the use of Q-floors. The firm has also issued a 36-page catalog (A.I.A. File No. 13-H) which describes Q-Floors—a cellular steel structural sub floor.

**Stucco.** 20-page catalog (A.I.A. File No. 21-D-1) from Medusa Portland Cement Co., 1000 Midland Bldg., Cleveland, Ohio, describes Medusa White Portland Cement Stucco. Included are general stucco specifications, illustrations of various stucco textures, other general information.

**Redwood.** Reprint of Technical Bulletin No. 16, from California Redwood Association, 405 Montgomery St., San Francisco, Calif., presents an overall picture of the wide usage of Redwood tanks and vats. The 4-page folder discusses grading of tank lumber, mechanical properties of redwood, properties of redwood compared with 21 other species.

**Steel.** Revised edition, 127 pages 5½" x 7¾", wire bound, of "Handbook of Special Steels," September, 1942, includes complete data for guidance in the proper selection, treatment, and use of these alloy steels, with finder charts and plenty of engineering tables to facilitate quick reference. A large section of the book is given over to charts dealing with steel weights and with sizes of plates and numerous other shapes. Allegheny Ludlum Steel Corp., Pittsburgh, Pa.

**Camouflage.** Blackout, camouflage and industrial protective finishes that meet government specifications are discussed in a 4-page folder, July 1942, issued by L. Sonneborn Sons, Inc., 88 Lexington Avenue, New York.

**Ballasts.** Construction features of ballasts for Mazda F lamps (fluorescent) are discussed in a 20-page catalog, 8" x 10½", recently issued by General Electric Co., Schenectady, N. Y. Included also are outlines, wiring diagrams, and engineering data.

(Continued on page 92)



# AWNINGS AND SHADES GO OUT

## Where Frosted AKLO Glass Goes In



CASE HISTORY No. 9

### Machinery Manufacturer

"In our last plant addition, using AKLO Frosted glass, all awnings and shades were eliminated. In fact, we had our men working directly in front of windows in the west elevation without the slightest glare or discomfort, also giving them adequate light for the most particular type of work.

"At the present time, we have an entirely new plant under construction, and without any doubt this building will be glazed with AKLO Frosted glass."

## Frosted AKLO Filters Daylight Without Glare, Keeps Interiors Cooler



**REDUCES GLARE**—eliminates eye-strain and employee fatigue.

**RETARDS SUN HEAT**—keeps workers comfortable on their jobs.

**RENDERS SAVINGS**—eliminates shades or painting of glass.

Frosted AKLO glass reduces glare, protects workers against sun-heat, and eliminates costly shades, or whitewashing of glass. In windows and skylights, it creates better working conditions and produces direct savings in plant maintenance.

By providing glareless light, it reduces product spoilage, increases worker safety, decreases errors, speeds production.

Its heat-absorbing properties reduce solar heat entering a building by as much as 47.9%, making employees feel better and work better. In air conditioned plants, operating costs are substantially reduced.

AKLO is manufactured by Blue Ridge Glass Corporation, Kingsport, Tenn., and sold by Libbey-Owens-Ford through leading glass distributors. It is available in hammered and ribbed patterns, both wired and unwired. For information, write Blue Ridge Sales Division, Room 1282, Libbey-Owens-Ford Glass Co., Toledo, O.



## BLUE RIDGE AKLO GLASS

Heat-Absorbing • Glare-Reducing • Figured and Wire Glass



**MANUFACTURERS' LITERATURE** (from page 90)

**Steam Generators.** New catalog of steam generators and necessities, 22 pages, from Vapor Car Heating Co., Inc., 80 E. Jackson Blvd., Chicago, Ill. Also included — spread of typical layouts showing uses of the generator. A loose-leaf binding permits additional sheets being added as new developments arise. The catalog includes several types of valves, traps, metallic joints, thermostatic controls, etc.

**Metal Mesh.** 1942 edition of the Steelcrete Handbook, 96 pages. The handbook is divided into three sections—photographs and descriptions of Safe-T-Mesh, flattened meshes, and Steelcrete walkway mesh, skywalk mesh, other products. Shown also are the firm's drafting room standards which include construction details for partitions, window and door guards, radiator guards, etc. The standards (enlarged copies of which may be had on request) also show detail dimensions of certain framing members and fittings.

**Kitchens.** Folder No. 314, 3 1/8" x 6", from Western Pine Association, Yeon Bldg., Portland, Ore.—"10 Ideas for Modern Kitchens"—is illustrated with ten photographs depicting typical designs suggestive of the many arrangements and varied decorative effects that are possible through planning and proper installation of woodwork and equipment.

**Valves.** Bulletin No. 112, 4 pages, illustrates and describes equalizing valves and air eliminators for automatic heating as well as for hand-fired systems. Sept., 1942. Gor-ton Heating Corp., Cranford, N. J.

**Formica.** Architectural and furniture applications for Formica are discussed in a series of current literature available from Formica Insulation Co., Cincinnati, Ohio. Four 4-page folders, each in color, illustrate and describe the use of Formica as table top equipment, in soda fountain installations, in public buildings, and in industrial, school and military post dining rooms. A separate 12-page booklet shows typical installations, reproduces in actual color the various colors, inlays, and realwoods available, includes construction details.

**Heaters.** Descriptive data on the al-weld Tabasco water heaters illustrated in Catalog TW-95b (A.I.A. File No. 29-D-2). Specifications given with dimensions tabulated in detail. 4 pages, 8 1/2" x 10 3/8".

**Home Improvements.** Celotex Corp., 120 S. LaSalle St., Chicago, Ill., has available a 24-page catalog, "Wartime Guide to Better Homes," which gives both the homeowner and the farmer a comprehensive description of the construction work that can be done under present WPB regulations.

**Shingles.** Envelope with eight blueprint type sheets (Nos. 920-927) showing red cedar shingle applications for various types of roofs and sidewalls. (Prepared by William Bain, A.I.A., architect.) Red Cedar Shingle Bureau, 5508 Whittier Bldg., Seattle, Wash.

**Heating.** Bulletin 623, 4 pages, from A. Dunham Co., 450 E. Ohio St., Chicago, Ill., contains a wartime check-up of steam heating systems and gives suggestions for economical heating service. The discussion of the maintenance of steam heating systems for the duration is presented in the belief that it will be of service to those responsible for operation and maintenance of buildings.



## How You Can Help to Meet War-Emergency Conditions

You can help to conserve scarce motors and critical metals by specifying Sedgwick Hand Power Elevators and Dumb Waiters whenever possible. War needs for Sedgwick electric equipment make it impossible to fill normal requirements. But Sedgwick Hand Power lifts are so well designed and constructed as to offer exceptional operating advantages, and unequalled economy in maintenance and use.

### SPECIFY Hand Power SEDGWICK DUMB WAITERS

for food service, supplies, garbage disposal in canteens, mess halls, hospitals and other institutions, and for any special needs where loads do not exceed 500 lbs.

### SPECIFY Hand Power SEDGWICK ELEVATORS

for handling freight and other heavy or bulky loads, for movement of patients and staff in hospitals, for mortuaries, and for any special needs where loads range up to 2,000 lbs.



We invite consultation and offer fullest cooperation in connection with any problem related to vertical lifts.



## SEDGWICK MACHINE WORKS

164 West 15th Street

Established 1893  
Member of Producers' Council, Inc.

New York, N. Y.

## DUMB WAITERS ~ ELEVATORS





## Chemistry is putting miracles on a mass production basis

If ever a "secret weapon" does emerge from all this welter of war, it will most likely be a chemical development. And the American chemical industry has as good a chance of discovering it as any other, for America now has the greatest synthetic organic chemical industry in the world.

This industry looks to coal tar chemicals for almost half the raw materials it uses. Koppers is at the very roots of these chemicals.

Koppers toluene goes into TNT, the principal military bursting charge. Koppers benzene is used in the manufacture of explosive stabilizers, and "boosters" for primers. Koppers naphthalene helps minimize the flash in powders.

Most explosives are made using combinations of nitric and sulfuric acids. Koppers coke ovens produce ammonia and this helps meet the extraordinary demand for fixed nitrogen and increases the amount of nitric acid available for the war effort.

The Koppers Phenolate Process helps the petroleum and the coking industries recover more sulfur which is converted into sulfuric acid.

Koppers tar acids and naphthalene find use in synthetic plastics for airplanes, tanks, etc.; naphthalene is used in chemicals for synthetic and natural rubber. Pyridine is an ingredient in the new process for waterproofing military fabrics for jeep tops, tents, etc. Flotation sulfur is one of the

principal spray materials for fruit crops.

Koppers serves the chemical industry in peace as well as war. Of the hundreds of coal tar intermediates, dyes and medicinals, about 87% are produced in greater or less degree from benzene, toluene, naphthalene, and phenol. Koppers is one of the principal sources of these and other basic materials. —Koppers Company, Pittsburgh, Pa.

Buy United States  
War Bonds and Stamps

**KOPPERS**  
THE INDUSTRY THAT SERVES ALL INDUSTRY

Workers in our Bartlett Hayward Division are now privileged to wear the Navy "E" emblem



## MORE WOMEN IN INDUSTRY

### *Better Washroom Facilities*

**W**OMEN are working on aircraft wings—women are operating punch presses—women are inspecting machine parts—more and more women are finding a place in our vastly increased war production.

And women in industry need washrooms—more of them—with better facilities—washrooms equipped for the tough service of a none too careful public.

Crane plumbing is designed to give industry the service it has a right to expect from washrooms. And what is more, Crane engineers have designed this equipment to use a minimum amount of critical materials. When adding to your washroom facilities, or modernizing your present plumbing equipment, be sure that your Plumbing Contractor installs Crane fixtures.



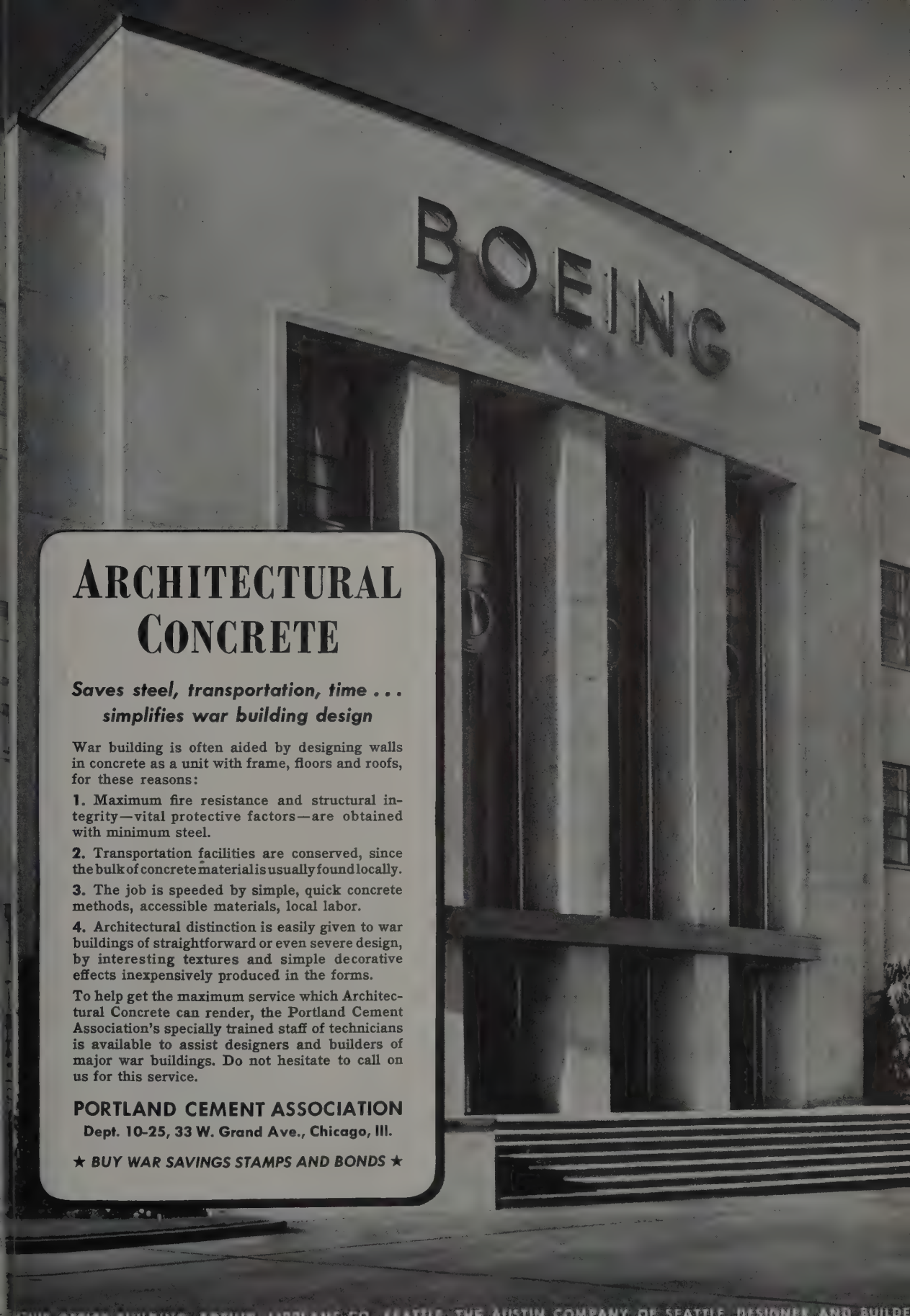
# CRANE

CRANE CO., GENERAL OFFICES:  
836 S. MICHIGAN AVENUE, CHICAGO

PLUMBING • HEATING • PUMPS  
VALVES • FITTINGS • PIPE

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS





# BOEING

## ARCHITECTURAL CONCRETE

*Saves steel, transportation, time . . .  
simplifies war building design*

War building is often aided by designing walls in concrete as a unit with frame, floors and roofs, for these reasons:

1. Maximum fire resistance and structural integrity—vital protective factors—are obtained with minimum steel.
2. Transportation facilities are conserved, since the bulk of concrete material is usually found locally.
3. The job is speeded by simple, quick concrete methods, accessible materials, local labor.
4. Architectural distinction is easily given to war buildings of straightforward or even severe design, by interesting textures and simple decorative effects inexpensively produced in the forms.

To help get the maximum service which Architectural Concrete can render, the Portland Cement Association's specially trained staff of technicians is available to assist designers and builders of major war buildings. Do not hesitate to call on us for this service.

### PORTLAND CEMENT ASSOCIATION

Dept. 10-25, 33 W. Grand Ave., Chicago, Ill.

★ BUY WAR SAVINGS STAMPS AND BONDS ★

## MANUFACTURERS' LITERATURE from page 92)

**Concrete Curing.** 6-page folder on Tru-Cure, a high, water-retaining concrete curing compound. Bulletin No. 534 (A.I.A. File No. 4-C) gives a summary of its properties, discusses application.

**Woodwork.** Forty-eight rules for the proper care of doors, windows, and other home woodwork are presented in a pocket-size folder prepared by Ponderosa Pine Woodwork, 111 W. Washington St., Chicago, Ill. 3 1/2" x 6 1/4".

## MANUFACTURERS DATA WANTED

**John O. Harmaala, Architect,** (Chairman of the Beverly Aerial Bombardment Protection Committee), 13 Jasper St., Beverly, Mass. (Data and samples of materials and equipment for air raid shelters.)

**Frederick Roth, Student,** 53-35 70th St., Maspeth, N. Y. (Manufacturers' catalogs and samples.)

**Irv Rosenbaum, Student** (Case Tech., Detroit), Junior Draftsman, 15880 Tuller St., Detroit, Mich. (Data for complete A.I.A. file.)

**John Schmidt, Student** (Pratt Institute), 553 Newark Ave., Jersey City, N. J. (Data for complete A.I.A. file.)

**Francis M. Tucci, Designer,** 194 E. Tremont Ave., New York. (Data for complete A.I.A. file.)

**Walter L. Watson, Architectural Designer and Plant Layout Engineer,** 88-73 193rd St., Hollis, N. Y. (Literature for complete A.I.A. file.)



War jobs need...

**Arkwright's sharp, clear lines—and permanence!**



Inferior tracing cloth may be disguised to look like Arkwright—but it won't give Arkwright results! Strong, evenly woven, uniform, this tracing cloth pays for itself over and over in clean, snappy blueprints. Years from now, your drawings will be as clear as they are today. This is WAR—play safe—war-time speed demands the best! Arkwright Finishing Company, Providence, Rhode Island.

**Arkwright TRACING CLOTHS**  
AMERICA'S STANDARD FOR OVER 20 YEARS

## GOVERNMENT PUBLICATIONS

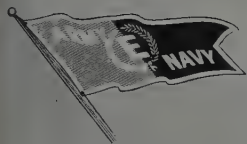
**Insulating Board.** Structural insulating board (vegetable fiber). 1942. iv + 10 p. (Simplified practice recommendation R179-42 (Effective date, June 1, 1942. Supersedes R179-41.) Paper. 13.12/1:179/2. From Superintendent of Documents, Washington, D. C., 5c.

**Building Trades.** Union wages, hours, and working conditions building trades, June 1, 1941; prepared by Industrial Relations Division. 1942. iv + 102 p. il. (Bulletin 680.) L 2.3:680. Paper. From Superintendent of Documents, Washington, 15c.

**Blackouts.** War Department specifications: Blackout of buildings (prepared under direction of chief engineers, Army, by Engineering Board, with suggestions of National Technological Civil Protection Committee, National Defense Research Committee, and National Bureau of Standards). Pr. 32.4406:B 56/1942. 8 p. 4°. From Civil Defense Office, Washington, free.

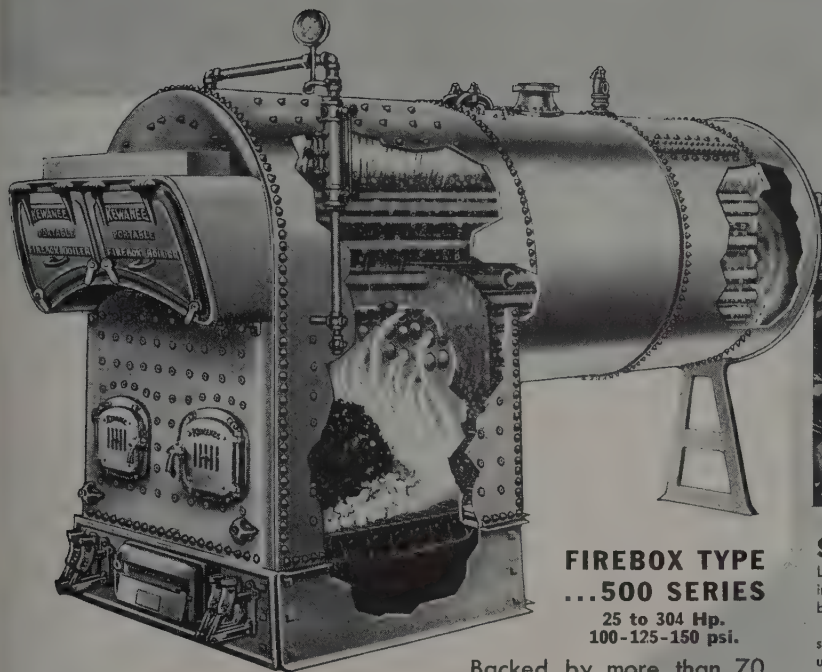
**Priorities.** Priorities in force, alphabetical listing of all priority orders in (1) P series—preference rating orders; (2) L series—limitation orders; (3) M series—conservation orders; (4) S series—suspension orders; (5) E series—equipment orders; (6) priority regulations with miscellaneous orders issued under priorities power through May 31, 1942. (1942) + 36 p. 4°. Pr. 32.481-942/4. From War Production Board, Washington, free.





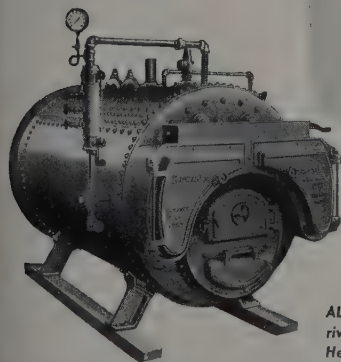
# KEWANEES

## STEEL BOILERS for POWER



**FIREBOX TYPE  
...500 SERIES**  
25 to 304 Hp.  
100-125-150 psi.

Backed by more than 70 years experience as one of America's largest fabricators of steel heating and power boilers, every characteristic which makes the firebox type especially adaptable for high pressure steam will be found in this Kewanee Extra Heavy series.

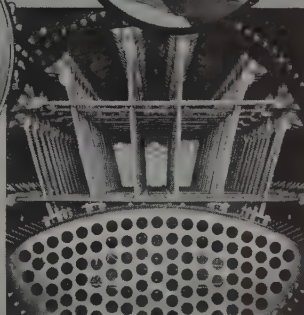


**SCOTCH MARINE — SCOTTIE JR.**  
5 sizes for 9.9 to 30 Horse Power . . . for 100 pounds working pressure

High pressure steam at low cost for small loads. Design, conveniently compact yet easily accessible.

Very economical to operate, with oil, gas or coal.

ALSO: Low Pressure Heating Boilers (up-draft and smokeless) riveted and welded types . . . Weld plus Rivet type . . . Water Heating Garbage Burners . . . Tabasco Water Heaters . . . Tanks.

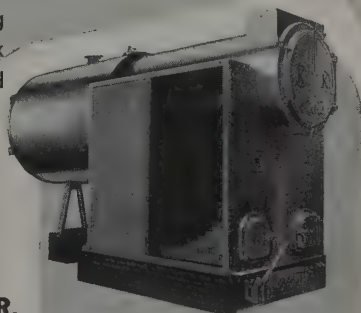


Unretouched Interior 304 HP, 150 PSI, #593

### STEEL + RIVETS

Long-lasting known strength is squeezed into the steel plate seams of Kewanee boilers by gigantic hydraulic Bull-riveters . . .

In the capacious insides where the steam bubbles up, fighting for release for useful work, extra stout stays and braces insure additional strength which also adds years of life.



**HI-TEST ALL-WELD**  
**Two-Pass Tubular with Firebox**  
6 sizes . . . for 50 to 150 Horse Power . . . for 125 and 150 psi

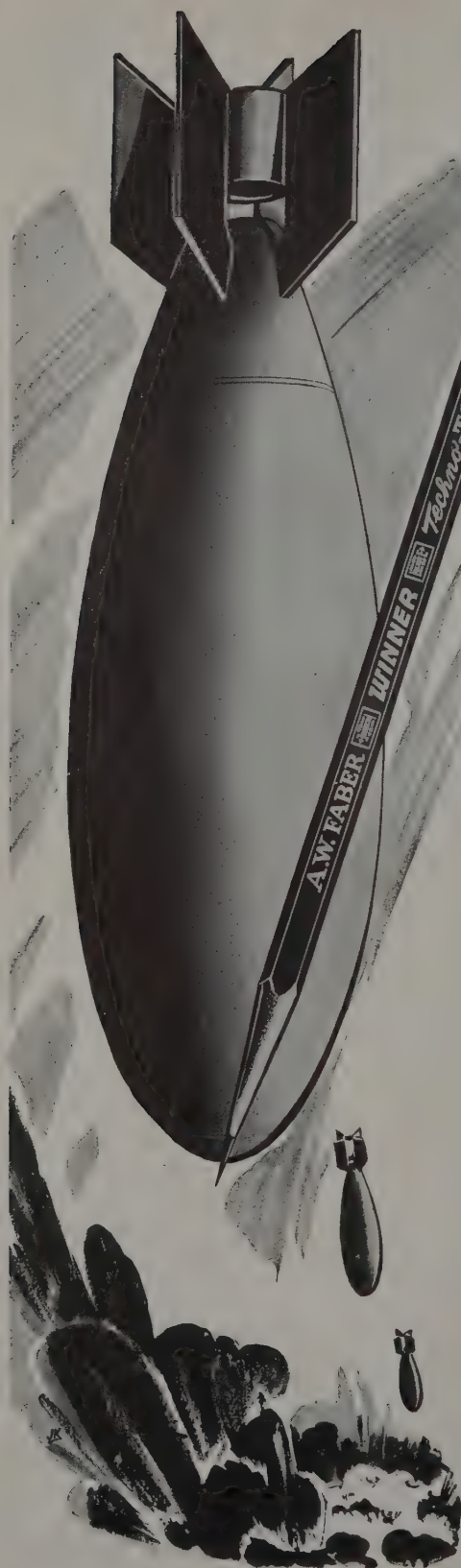
A quick-steaming, all-welded portable unit . . . all joints fusion welded, X-Ray checked and test-specimen results recorded.

Refractory lined firebox is designed as an integral part of the boiler, making it entirely self-contained.

## KEWANEES BOILER CORPORATION

KEWANEES  
ILLINOIS

Branches in 64 Cities—Eastern District Office: 37 W. 39th St., New York City  
Division of AMERICAN Radiator and "Standard" Sanitary Corporation



7 inches of  
concentrated

**DESTRUCTION**

The Axis is getting the axe of America's war production.

Production that begins in thousands of factories with a 7-inch drawing pencil — A. W. Faber's WINNER Techno-TONE, America's standard of excellence.

Seven inches of polished cedar wood encasing precision milled and refined graphite—but what a punch it packs when translating the genius of engineers, designers and draftsmen into ships and tanks and planes.

If you are a pencil craftsman you owe it to yourself to get acquainted with WINNER Techno-TONE. We'll gladly send you a FREE sample of your favorite degree.

● Companion Pencil—WINNER Thin Colored Checking—Superb colors and strength. Choicest for all prints: 2381 Red; 2382 Blue; 2383 Green; 2385D Yellow; 2437D Orange. 10¢ each; \$1.00 dozen. Would you like a sample?

● WINNER Techno-TONE is available in 17 scientifically graded tones—6B to 9H. Polished rich green. Packed in metal boxes. Made in U. S. A.

Write Dept. PP-10, A. W. Faber, Inc., Newark, N. J.

**WINNER** *Techno-TONE*  
**DRAWING PENCIL**

**13c each    2 for 25c    \$1.25 dozen**

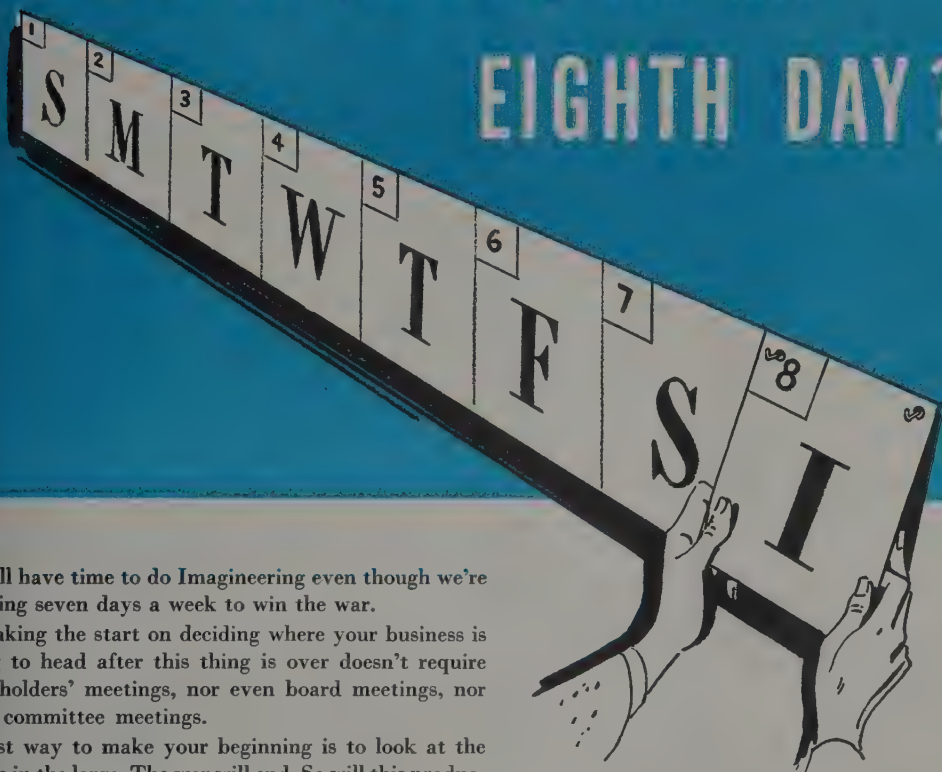
At all Drawing and Artists Material dealers and leading Stationers.

**A\*W\*FABER\*Inc.** NEWARK N.J.



What are you doing with that

EIGHTH DAY?



We all have time to do Imagineering even though we're working seven days a week to win the war.

Making the start on deciding where your business is going to head after this thing is over doesn't require stockholders' meetings, nor even board meetings, nor even committee meetings.

Best way to make your beginning is to look at the future in the large. The war will end. So will this production race on war materiel. Millions now employed at that kind of work will need to keep on working at *something* useful. Other millions will come home from wherever, needing useful and peaceful employment.

In the large, therefore, anyone can see that *new things to make* is a prime need for peacetime.

That makes everyone's individual responsibility clear and direct.

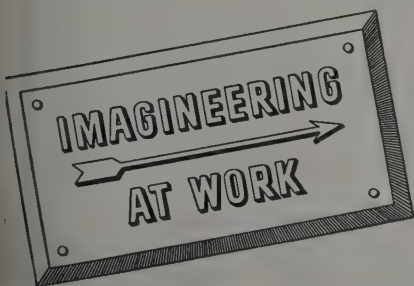
In the eighth day of thinking time everyone has at his disposal, he must produce new ideas for new jobs. He *must* let his imagination soar and engineer it down to earth.

He must, or else—

We believe this deeply at Alcoa. We are using our eighth days that way. We mean that no man shall be out of a job when this thing is over for want of *try* on our part right now.

And if you suspect that some of the results of our future-looking on aluminum would fit into your own Imagineering, let's compare notes for future reference.

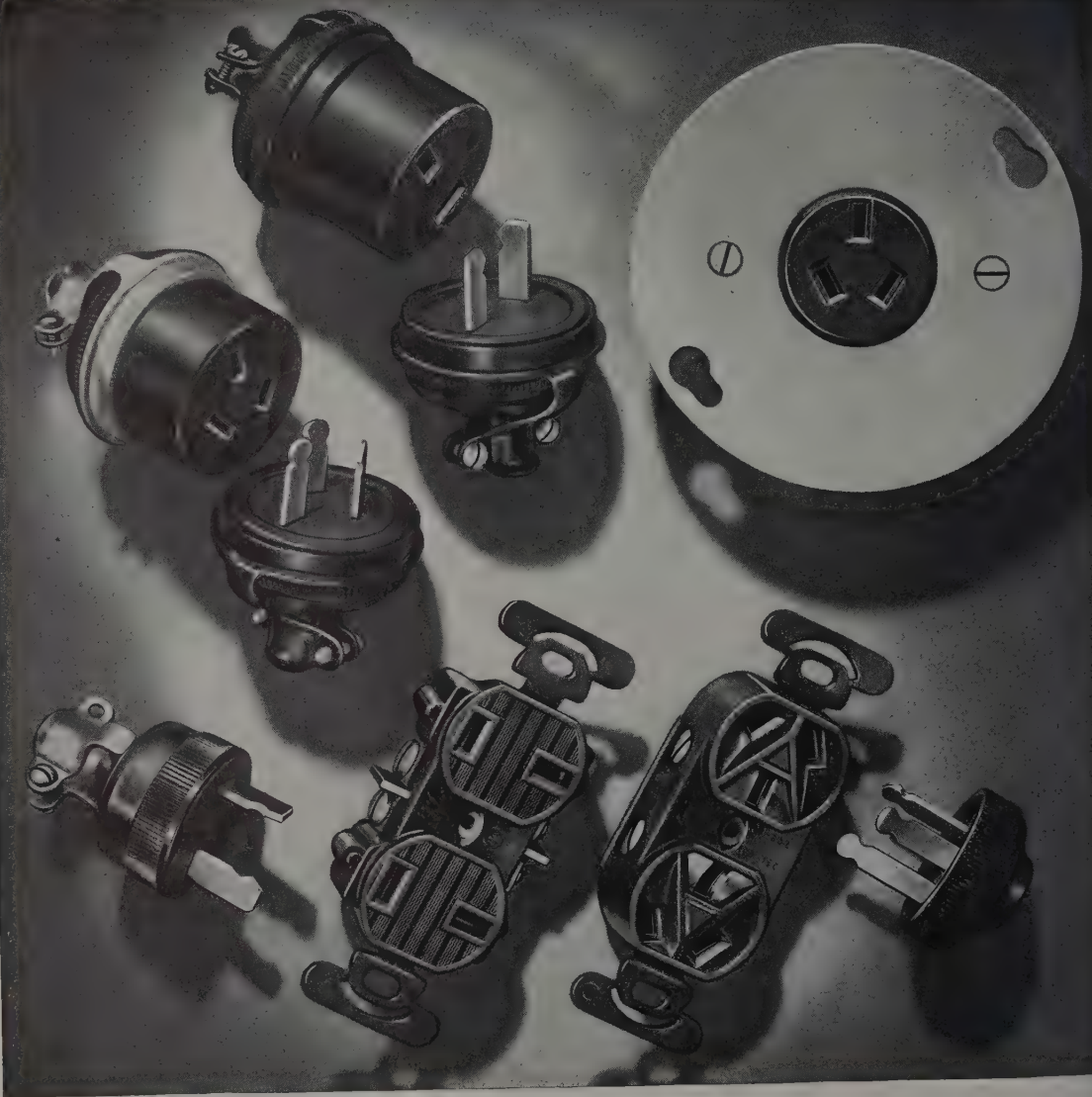
ALUMINUM COMPANY OF AMERICA, 2198 Gulf Building, Pittsburgh, Pennsylvania.



ALCOA ALUMINUM



# POLARIZED PLUGS and RECEPTACLES



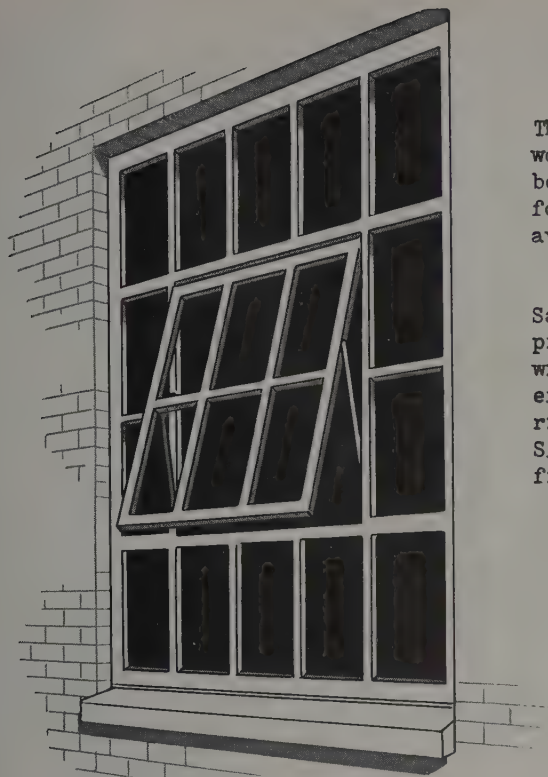
## H & H Products to help energize War-production plants

Give more power to MAN-power through more *Outlets* for portable tools. Add to flexibility of plant-equipment with additional power connections for light machines . . . Here's a way for the architectural specifier to extend production facilities, — to "energize" assembling operations or plant-conversion.

H & H provides all types of Polarized Receptacles and Plugs, ruggedly built for rough handling in war-driven manufacturing. Two, three and four-wire Receptacles, Plugs and Connectors in 10, 20, 30 and 50 Ampere capacity. Above-shown are a few representatives of our *complete line* for Industry's current needs.

**HART & HEGEMAN DIVISION**  
THE ARROW-HART & HEGEMAN ELECTRIC CO. HARTFORD, CONN.





This stronger, neater appearing wood sash has been designed for both old and new construction for which steel sash is no longer available.

Sash and frame are of genuine white pine, 1-3/4" thick, toxic treated with Woodlife. Furnished for either inside or outside glazing. Don't risk delays...specify this NEW PELLA SASH and be sure your jobs will be finished on time.

WRITE FOR FULL SIZE DETAILS

ROLSCREEN COMPANY

Pella, Iowa

WHO NEEDS COMMERCIAL SASH IN A HURRY?



TABLE OF  
SIZES

Standard units will have glass sizes reduced to maintain standard steel opening sizes. Or, Pella Projected Sash may be ordered with full size glass and a corresponding increase in opening dimensions without extra cost.

|           |         |         |          |          |          |          |          |          |           |
|-----------|---------|---------|----------|----------|----------|----------|----------|----------|-----------|
| 12' x 18' | 3' x 2' | 3' x 2' | 4' x 2'  | 4' x 2'  | 4' x 2'  | 5' x 2'  | 5' x 2'  | 6' x 3'  | 12' x 18' |
| 2' x 10'  | 3' x 8' | 3' x 8' | 4' x 10' | 4' x 10' | 4' x 10' | 5' x 10' | 5' x 10' | 6' x 10' | 14' x 20' |
| 22140     | 32      | 32160   | 42       | 42140    | 42180    | 52       | 52160    | 62180    |           |
| 23141     | 33      | 33161   | 43       | 43141    | 43181    | 53       | 53161    | 63181    |           |
| 24142     | 34      | 34162   | 44       | 44142    | 44182    | 54       | 54162    | 64182    |           |
| 25143     | 35      | 35163   | 45       | 45143    | 45183    | 55       | 55163    | 65183    |           |
| 2522402   | 3523602 | 4522402 | 4524802  | 5523602  | 6524802  |          |          |          |           |

*Pella*

PROJECTED WOOD SASH

Made by Rolscreen Company, makers of Pella Rolcreens, Venetian Blinds, Casements



## HOW STRUCTURAL WELDING *Saves 10%* IN STEEL!

Comparatively long trusses such as those illustrated above, and long girders, offer a particular opportunity to save steel by using arc welding and oxyacetylene cutting. In general it is agreed that welded construction results in an average saving in steel of better than 10%, when such members are involved.

Three main factors make this possible: First, welded construction does not require the punching or drilling of weakening holes, therefore permits the use of lighter plates and sections and lowers shop costs. Second, plate edges to be welded need not be overlapped to provide maximum efficiency. Third, less connection material, if any at all, is required to join members or plates at their intersections.

The services of Air Reduction's Applied Engineering Department for consultation on design problems is readily available.

### Air Reduction

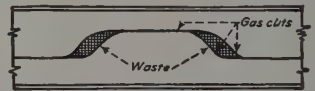
General Offices:  
60 EAST 42nd STREET, NEW YORK, N. Y.  
IN TEXAS  
MAGNOLIA-AIRCO GAS PRODUCTS CO.



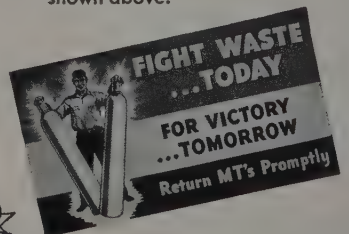
**OXYGEN IS PRODUCTION — Don't Waste it!**



Detail of welded panel point connection of a truss, utilizing the increased depth of the unique one-piece chord and "gusset plate" made by splitting a beam section.



Sketch showing the way the beam section was split by oxyacetylene cutting to make the chord sections shown above.







**OTHER EXAMPLES  
OF CURTIS SERVICE**



Homes built in Wichita, Kansas, by Womer-Greer Investment Co. . . . All houses have Curtis Silentite Windows and Mitertite Trim. The architects were Overand & Boucher, Wichita. Many more homes of this style and size are going up now and will be Curtis-equipped.

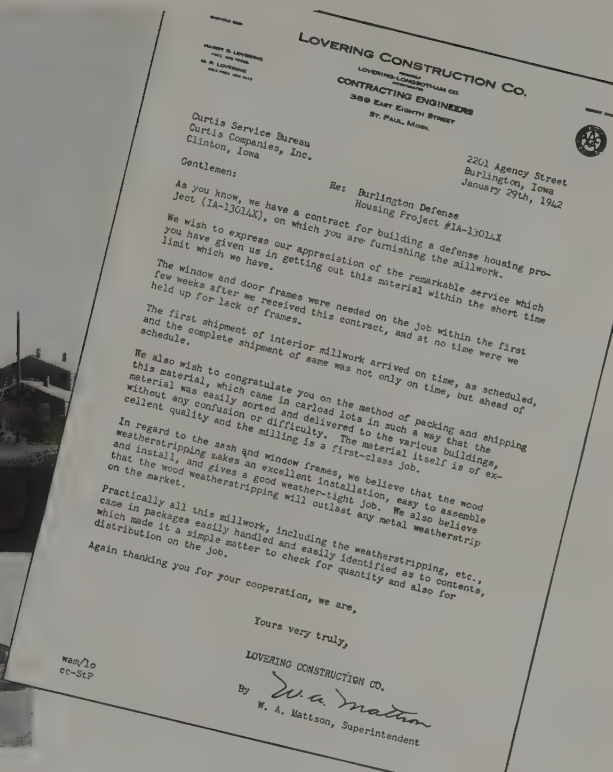


Part of group of large apartment buildings to house government workers being erected at Arlington, Virginia, by Barcroft Inc.—Thomas N. De Lashmutt, builder. Here, again, Curtis Woodwork speeds the job —provides quality at cost well within the building budget.

### OTHER CURTIS-EQUIPPED PROJECTS

Here are other large housing projects now under construction or recently completed in which Curtis Silentite windows and Curtis stock architectural woodwork have contributed to speedy completion and satisfactory operation:

|                   |                      |
|-------------------|----------------------|
| Baltimore, Md.    | Atlanta, Ga.         |
| Wheeling, W. Va.  | Canfield, Ohio       |
| Tulsa, Okla.      | Salt Lake City, Utah |
| Williamsport, Pa. | Cuyahoga Falls, Ohio |
| Amarillo, Texas   | Spokane, Wash.       |
| Boise, Idaho      | Columbia, S. Car.    |
| Yakima, Wash.     | Indianapolis, Ind.   |



**... and Curtis is "on time"  
for defense housing  
all over the country!**

• In Maryland or Idaho—in Virginia or Iowa, Michigan or Kansas—Curtis service and Curtis quality are speeding the nation's big job of defense housing.

In war as in peace, stock Curtis Woodwork and Curtis Silentite Windows are demonstrating their ability to save time on the job—and to give owners of low-cost homes greater dollar value in workmanship and materials.

This page shows only a few of the Curtis installations in defense housing projects throughout the country. If you, too, are interested in building small houses of architectural distinction—soundly constructed, low in cost and economical to operate—we invite you to get full details on how Curtis stock woodwork and Silentite "Insulated" Windows can contribute to better, faster building. Just mail the coupon.



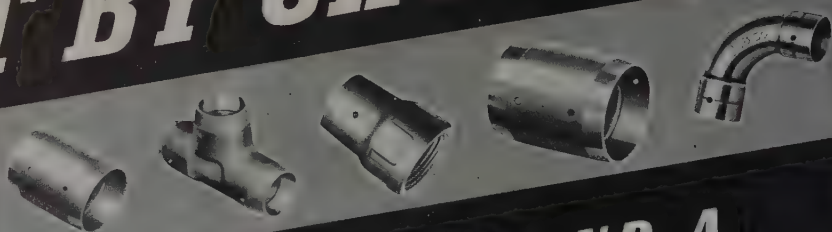
CURTIS COMPANIES SERVICE BUREAU  
Dept PP-100 Curtis Bldg., Clinton, Iowa  
I want to know more about how Curtis Woodwork and Curtis Silentite Windows can serve me in defense housing.

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

# NOT BY CHOICE ★

## BUT BY NECESSITY AND A

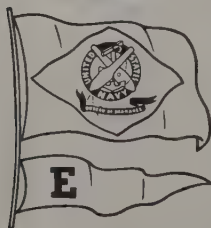
## PATRIOTIC PRIVILEGE OF DUTY ★



BRASS CO.—PORT

MICH—STREAMLIN

ARD—GOVT—TYPE M—



WINNERS OF NAVY "E" AWARD

**MUELLER**  
BRASS CO.  
PORT HURON, MICH.

● Up until a few months ago, we still thought, here in America, that we might keep out of this second World War. We wanted to mind our own affairs and go on with the business of building up rather than tearing down—of pursuing peace and prosperity.

We at the Mueller Brass Co. wanted to go on making, among other good products of copper and brass, STREAMLINE copper pipe and fittings for the finest plumbing and heating conducting systems in the world. We didn't want war business . . . we wanted to keep our peace-time business with the plumbers and steamfitters of America.

But now our plant is engaged 100% in the production of war materials. Brass and bronze are safeguarding the life of the nation, but after peace is won, we will again manufacture and supply an even better STREAMLINE copper pipe and fittings.

So we are producing those things which Uncle Sam requires of us, with every ounce of skill and energy which we possess, not by choice, but by necessity and a patriotic privilege of duty, to the end that freedom, peace and prosperity be ours once more—and that those very businesses of which we are temporarily deprived be regained in the shortest possible time.



# ***NOW*** You can set up **INSULUX** Partitions with Prefabricated Wood Strips



**...FOR FASTER ERECTION  
WITHOUT METAL OR MORTAR  
...FOR EASY DISMANTLING  
WITH 100% SALVAGE  
...FOR ADDED BEAUTY AND COLOR,  
AT AMAZING LOW COST**

Now you can erect INSULUX partitions easily and quickly by using prefabricated wood strips instead of mortar. No metal is needed... only three standard pieces are required—horizontal strips, vertical strips and wedges.

The new wood strip dividers are precision-milled with special ribs that securely grip the corrugated edges of INSULUX Glass Block, hold each block tightly. Wood wedges, at top and sides of panel, exert firm pressure on all units, insure strength. Blocks are held firmly in alignment, and the panel is straight and true.

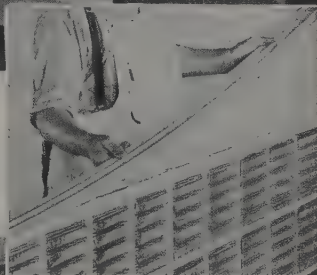
One craftsman, or trade, sets up the entire partition. Furthermore, the panel can be dismantled with 100% salvage of materials. There's no muss or fuss—minimum disturbance of activities.

INSULUX Glass Block wood strip partitions are beautiful and distinctive-looking. The wood dividers can be left in their natural finish, or painted to harmonize with walls or furnishings. INSULUX partitions transmit daylight from room to room.

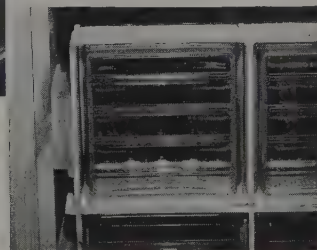
Prefabricated wood strips come packaged for immediate use. Horizontal strips are in 6, 8 and 10 ft. lengths; vertical strips are 8 in. and 12 in. to fit either 8 in. or 12 in. block.



Close-up of jamb detail. One wedge is nailed to chase; second wedge is driven in place when panel is erected. Partition is secure until wedges are unloosened for dismantling.



Panels are easy to assemble and take down. Note how ribs on wood strip fit INSULUX corrugated edges perfectly. Strips can be left in natural finish or painted before installation.



**OWENS-ILLINOIS**  
**INSULUX**  
**GLASS BLOCK**

OWENS-ILLINOIS GLASS COMPANY  
INSULUX Products Division, Dept. 77, Toledo, Ohio.  
Gentlemen: Please send free folder describing new method of erecting INSULUX Glass Block partitions with wood strip dividers.

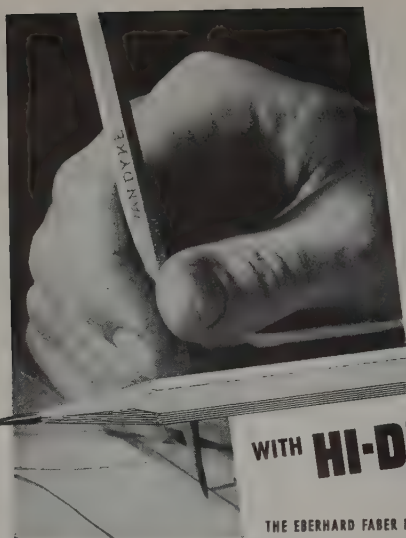
Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_





## More Blueprintable Tracings

...drawn with **HIGH-DENSITY LEAD** that makes a solidly opaque line without thickness of lead deposit. More smudge-free, and easier to erase, too. Practical qualities that have turned all eyes to the modern **MICROTOMIC "VAN DYKE"** Drawing Pencil. ...At accredited dealers. If you have not yet done so, we suggest you experiment and convince yourself.

WITH **HI-DENSITY LEAD** **MICROTOMIC VAN DYKE** DRAWING PENCILS

THE EBERHARD FABER DRAWING PENCIL WITH THE MICROTOMIC LEAD...18 DEGREES—AND 6 DEGREES WITH CHISEL POINT LEADS

### ARCHITECTURAL ENGINEERING

A Practical Course (HOME STUDY) by Mail Only

Prepares Architects and Draftsmen  
for structural portion of

#### STATE BOARD EXAMINATIONS

For many this is the most difficult section of the examinations. Qualifies for designing structures in wood, concrete or steel. Successfully conducted for the past nine years. Our complete Structural Engineering course well known for thirty years.

Literature without obligation—write **TODAY**

#### WILSON ENGINEERING CORPORATION

College House Offices Harvard Square  
CAMBRIDGE, MASSACHUSETTS, U. S. A.

### Soilless Growth of Plants

By ELLIS AND SWANEY

It takes the bunk and mystery out of the subject and, instead, tells you, plainly, the principles, possibilities and simple working plans for starting this fascinating hobby. Shows how to grow plants in water, sand or cinders—how to build the simple equipment you need—complete directions for tending the plants—how to make your own nutrient solutions with a few cents worth of chemicals.

155 Pages, 60 Illustrations, \$2.75

Reinhold Publishing Corp., 330 W. 42nd Street, New York

### HIGGINS INKS—more power to your pen

Higgins completes the power circuit between your brain, eyes, hand, pen and board. An ink whose jet-black fluidity lends itself to your every mood. For clean scratchboard drawings devoid of bubbles, chips or jagged edges, use Higgins.

This and other illustrations appear in Higgins new "Techniques" pamphlet. One copy *only* free to art instructors writing on school stationery. All others 50 cents.

AVAILABLE in a COMPLETE COLOR RANGE

Scratchboard drawing in Higgins Ink by W. Parke Johnson. Courtesy of American Telephone & Telegraph Co.



**HIGGINS INK CO., INC.**  
271 SIXTH ST. BROOKLYN, N. Y., U. S. A.

**HIGGINS**





Courtesy of Herbert A. Brand, Architect  
of Churches and educational buildings

## SEND FOR A SAMPLE OF JUSTRITE DRAFTING INK

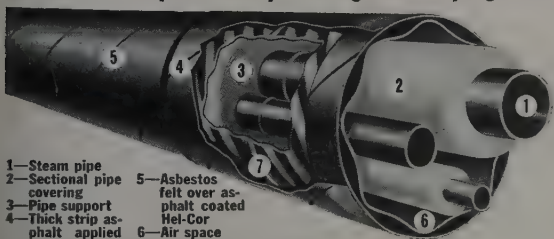
Notice how freely this new drawing ink flows. It will not cake in the bottle or on your drafting pen. You will be pleased, too, with the superior reproductions and fine work you can obtain with Justrite.

Offered in twenty highly waterproof colors. 3/4-ounce quill stopper bottle 25c at your dealers'. Also available in larger sizes.



FOR YOUR SAMPLE write The Louis Melind Co.,  
Dept. C, 362 W. Chicago Avenue, Chicago, Illinois

## RIC-WIL PRE-FABRICATED INSULATED PIPE UNITS...with all Connections WELDED...a Super-Quality Underground Piping Job!



- 1—Steam pipe
- 2—Sectional pipe covering
- 3—Pipe support
- 4—Thick strip asphalt applied after welding
- 5—Asbestos felt over asphalt coated Hel-Cor
- 6—Air space
- 7—Butt welded connection

FOR an air-and-water-tight connection on both pipe line and conduit—use Ric-wil Insulated Pipe Units with all-welded connections! For a perfect seal, for permanence, and for a joint of maximum strength, nothing is superior to welded construction.

Ric-wil factory pre-fabricated, pre-sealed Insulated Pipe Units are today's answer to wartime demands for a thoroughly protected and insulated piping system *ready for quick installation*. Units are delivered complete including the steam pipe, in approximately 20 foot lengths, for underground or outside overhead steam, hot water, or oil lines. All expansion loops, conduit fittings, anchors, watertight glands, and other accessories can also be furnished ready to install. Units are pre-insulated to your specifications. For information on Ric-wil welded and other types of piping systems, ask for latest Bulletin 4208.

Engineers on Defense Work Only! Write on your  
letterhead for Professional Engineering Manual 420A.

**RIC-WIL** CONDUIT SYSTEMS  
THE RIC-WIL CO., CLEVELAND, O.  
*Agents in Principal Cities*



## He Means ME!

Every man moves in his own world. And it's a "he-didn't-mean-me" kind of world. That's my world. It's yours. It's everybody's. And that's why it takes such tremendous blasts of publicity to get us—individually—stirred up. In all of the appeals—by radio, newspapers, posters, speakers—Uncle Sam is talking to ME, Mister! and to YOU! Uncle Sam means *both of us*.

Let's forget the obvious things we've all done. What have we done, what are we doing about those obscure opportunities to conserve which will mean so much to wartime needs this Winter?

Are you using your influence and counsel to relieve winter freight congestion? Coal and oil on hand now, won't tie-up transportation a few months hence when every last car must be available to the Army and Navy and to Industry serving those forces.

What are you doing about healthful heating levels in "your" buildings? A properly heated building will help keep its occupants all strong to do the imperative jobs—to increase production. Are the heating systems in your factory or other buildings "tuned-up?" Will they provide proper heat on the very least amount of fuel? It's imperative that fuel be conserved.

### A Service to help you

As a Service—to help on conservation—we have listed a number of simple ways to reduce the quantity of fuel you must use to maintain proper heating temperatures. We will be glad to mail you a copy of "A Wartime Check-Up of Steam Heating Systems," and in addition we offer you the counsel of our nation-wide organization of trained Sales Engineers who will be glad to confer with you, your architect or consulting engineer. This is a service we are glad to extend in recognition of our responsibility towards Victory and Peace.

"Dunham Heating Service" is available through the telephone to more than 60 cities, or by correspondence to C. A. Dunham Co., 450 E. Ohio St., Chicago.



# INDEX to ADVERTISERS

ADVERTISING OFFICES: 330 WEST 42nd STREET, NEW YORK, N. Y. PHILIP H. HUBBARD, VICE-PRESIDENT AND PUBLISHING DIRECTOR. EASTERN REPRESENTATIVES: ROBERT N. CAIRD, JR.; KELLOGG SPRAGUE, 330 W. 42nd ST., NEW YORK, N. Y., BR 9-4430. DISTRICT OFFICES: 1133 LEADER BUILDING, CLEVELAND, MAYNARD S. KEARNEY, PRospect 5583; 310 SOUTH MICHIGAN AVENUE, CHICAGO, JOHN G. BELCHER, Harrison 7218. PACIFIC COAST REPRESENTATIVE: DUNCAN A. SCOTT & CO., WESTERN PACIFIC BLDG., LOS ANGELES, CALIF., PR-spect-5319 AND MILLS BLDG., SAN FRANCISCO, CALIF. SU-tter-1393 (MAIN OFFICE).

|  |         |   |                |
|--|---------|---|----------------|
| <b>Adam, Frank, Electric Company</b> .....                         | 19      | <b>Kawneer Company</b> .....  | 3              |
| Agency—Major Advertising Agency                                    |         | Agency—Carter, Jones & Taylor   |                |
| <b>Air Reduction Sales Company</b> .....                           | 102     | <b>Kennedy, David E., Inc.</b> .....                                    | 17             |
| Agency—G. M. Basford Co.   |         | Agency—Gerald Lesser  |                |
| <b>Aluminum Company of America</b> .....                           | 99      | <b>Kewanee Boiler Corporation</b> .....                                 | 97             |
| Agency—Fuller & Smith & Ross, Inc.                                 |         | Agency—Ferry-Hanly Co.  |                |
| <b>American Brass Company, The</b> .....                           | 13      | <b>Kinnear Manufacturing Company</b> .....                              | 82             |
| Agency—Ivey & Ellington, Inc.                                      |         | Agency—Wheeler, Kight & Gailey, Inc.                                    |                |
| <b>American Pencil Company</b> .....                               | 83      | <b>Koppers Company</b> .....  | 93             |
| Agency—Al Paul Lefton Co., Inc.                                    |         | Agency—Ketchum MacLeod & Grove, Inc.                                    |                |
| <b>Arkwright Finishing Company</b> .....                           | 96      | <b>LCN Door Closers</b> .....   | 24             |
| Agency—Horton-Noyes Co.  |         | Agency—J. R. Hamilton Advertising Agency                                |                |
| <b>Armstrong Cork Company</b> .....                                | 21, 23  | <b>Libbey-Owens-Ford Glass Company</b> .....                            | 91, Back Cover |
| Agency—Batten, Barton, Durstine & Osborn, Inc.                     |         | Agency—Fuller & Smith & Ross, Inc.                                      |                |
| <b>Arrow-Hart &amp; Hegeman Electric Company</b> .....             | 100     | <b>Louisville Cement Company</b> .....                                  | 25             |
| Agency—Norris L. Bull Advertising                                  |         | Agency—Doe-Anderson Advertising Agency                                  |                |
| <b>Barber-Colman Company</b> .....                                 | 10      | <b>Maple Flooring Manufacturers Association</b> .....                   | 22             |
| Agency—Cummings, Brand & McPherson                                 |         | Agency—Aubrey, Moore & Wallace, Inc.                                    |                |
| <b>Blue Ridge Glass Corporation</b> .....                          | 91      | <b>Medusa Portland Cement Company</b> .....                             | 12             |
| Agency—Fuller & Smith & Ross, Inc.                                 |         | Agency—Will, Inc.   |                |
| <b>Cabot, Samuel, Inc.</b> .....                                   | 14      | <b>Melind, The Louis Company</b> .....                                  | 107            |
| Agency—Mason L. Ham  |         | Agency—Brandt Advertising Co.   |                |
| <b>Carrier Corporation</b> .....                                   | 81      | <b>Montgomery Elevator Company</b> .....                                | 84             |
| Agency—Chas. Dallas Reach Co.                                      |         | Agency—L. W. Ramsey Co.   |                |
| <b>Celotex Corporation</b> .....                                   | 2       | <b>Mueller Brass Company</b> .....                                      | 104            |
| Agency—MacFarland, Aveyard & Co.                                   |         | <b>Owens-Illinois Glass Company</b> .....                               | 105            |
| <b>Crane Company</b> .....   | 94      | Agency—D'Arcy Advertising Co.   |                |
| Agency—The Buchen Co.  |         | <b>Oxalid Products Division, General Aniline Film Corporation</b> ..... | 15             |
| <b>Curtis Companies Service Bureau</b> .....                       | 103     | Agency—D. William Roth Co.  |                |
| Agency—The Buchen Co.  |         | <b>Portland Cement Association</b> .....                                | 95             |
| <b>Dixon, Joseph, Crucible Company, Pencil Sales Department</b> .. | 77      | Agency—Roche, Williams & Cunningham, Inc.                               |                |
| Agency—Federal Advertising Agency, Inc.                            |         | <b>Raymond Concrete Pipe Company</b> .....                              | 9              |
| <b>Dixon's Typhonite Eldorado Pencils</b> .....                    | 77      | Agency—Needham & Grohmann, Inc.   |                |
| Agency—Federal Advertising Agency, Inc.                            |         | <b>Reinhold Publishing Corporation</b> .....                            | 104, 106       |
| <b>Douglas Fir Plywood Association</b> .....                       | 84      | <b>Richmond Fireproof Door Company</b> .....                            | 16             |
| Agency—McCann-Erickson, Inc.                                       |         | <b>Ric-Wil Company</b> .....  | 107            |
| <b>Dunham, C. A., Company</b> .....                                | 107     | Agency—The Krichbaum Co.  |                |
| Agency—Western Advertising Agency                                  |         | <b>Robertson, H. H. Company</b> .....                                   | 4, 5           |
| <b>Eagle Pencil Company</b> .....                                  | 89      | Agency—Fuller & Smith & Ross, Inc.                                      |                |
| Agency—Albert Frank-Guenther Law, Inc.                             |         | <b>Rolscreen Company</b> .....  | 101            |
| <b>Eberhard Faber Pencil Company</b> .....                         | 106     | Agency—L. W. Ramsey Co.   |                |
| Agency—Moser & Cotins New York City Corp.                          |         | <b>Rotary Lift Company</b> .....  | 7              |
| <b>Faber, A. W., Inc.</b> .....                                    | 98      | Agency—Merrill Kremer, Inc.   |                |
| Agency—Advertising Associates                                      |         | <b>Scott Paper Company</b> .....  | 79             |
| <b>Fairbanks, Morse &amp; Company</b> .....                        | 86      | Agency—J. Walter Thompson Co.   |                |
| Agency—Henri, Hurst & McDonald, Inc.                               |         | <b>Sedgwick Machine Works</b> .....                                     | 92             |
| <b>Formica Insulation Company</b> .....                            | 27, 28  | Agency—Roeding & Arnold, Inc.   |                |
| Agency—Chester C. Moreland Co.                                     |         | <b>Staedtler, J. S., Inc.</b> .....                                     | 86             |
| <b>General Electric Company, Home Bureau</b> .....                 | 6       | Agency—La Porte & Austin, Inc.  |                |
| Agency—Maxon, Inc.   |         | <b>Tile-Tex Company, The</b> .....                                      | 29             |
| <b>Higgins Ink Company, Inc.</b> .....                             | 106     | Agency—L. W. Ramsey Co.   |                |
| Agency—Calkins & Holden  |         | <b>Trane Company, The</b> .....   | 87             |
| <b>Jamison Cold Storage Door Company</b> .....                     | 14      | Agency—Batten, Barton, Durstine & Osborne, Inc.                         |                |
| Agency—Charles Blum Advertising Corp.                              |         | <b>Truscon Steel Company</b> .....                                      | 30             |
| <b>Johns-Manville Corporation</b> .....                            | 26, 110 | Agency—Meldrum & Fewsmith, Inc.   |                |
| Agency—J. Walter Thompson Co.                                      |         | <b>United Service Organization</b> .....                                | 109            |
|  |         | <b>U. S. Steel Corporation</b> .....                                    | 85             |
|  |         | Agency—Batten, Barton, Durstine & Osborn, Inc.                          |                |
|  |         | <b>Universal Atlas Cement Company</b> .....                             | 85             |
|  |         | Agency—Batten, Barton, Durstine & Osborn, Inc.                          |                |
|  |         | <b>Vonnegut Hardware Company</b> .....                                  | 18             |
|  |         | Agency—Hammel & McDermott, Inc.   |                |
|  |         | <b>Warren Webster &amp; Company</b> .....                               | 2nd Cover      |
|  |         | Agency—William Jenkins Advertising                                      |                |
|  |         | <b>Weis, Henry, Manufacturing Co.</b> .....                             | 88             |
|  |         | Agency—Lampert, Fox & Co.   |                |
|  |         | <b>Weyerhaeuser Sales Company</b> .....                                 | 3rd Cover      |
|  |         | Agency—Alfred Colle Co.   |                |
|  |         | <b>Wilson Engineering Corporation</b> .....                             | 106            |
|  |         | <b>Youngstown Sheet &amp; Tube Company</b> .....                        | 11             |
|  |         | Agency—The Griswold-Eshleman Co.  |                |





*This photo taken in action in Bataan by U. S. Army Signal Corps*

## The War isn't fought in Fox Holes alone

**I**T'S fought in the mind. It's fought with a will to win. It's fought with a belief in a cause worth dying for.

That will, that belief, is known as *morale*.

Our enemies have had years of indoctrination. They have been conditioned to believe themselves part of a "new order" . . . to which the contribution of their lives is small but all-important. They believe themselves cogs in a vast machine.

Our soldiers do not fight that way—because they do not live that way. They believe in the sanctity of the individual.

They must be treated as persons.

To maintain their morale in the American way, the USO has devoted all its time and energy since practically the beginning of conscription.

It has done this by staffing and maintaining club houses near all training camps and in outlying possessions of the United States.

Today its work is far greater than ever, its need for funds to carry on more than doubled.

*The USO needs your help more than ever before!*

High government and military offi-

cials—including General MacArthur—have praised the work done by the USO and recognized its importance in the war effort.

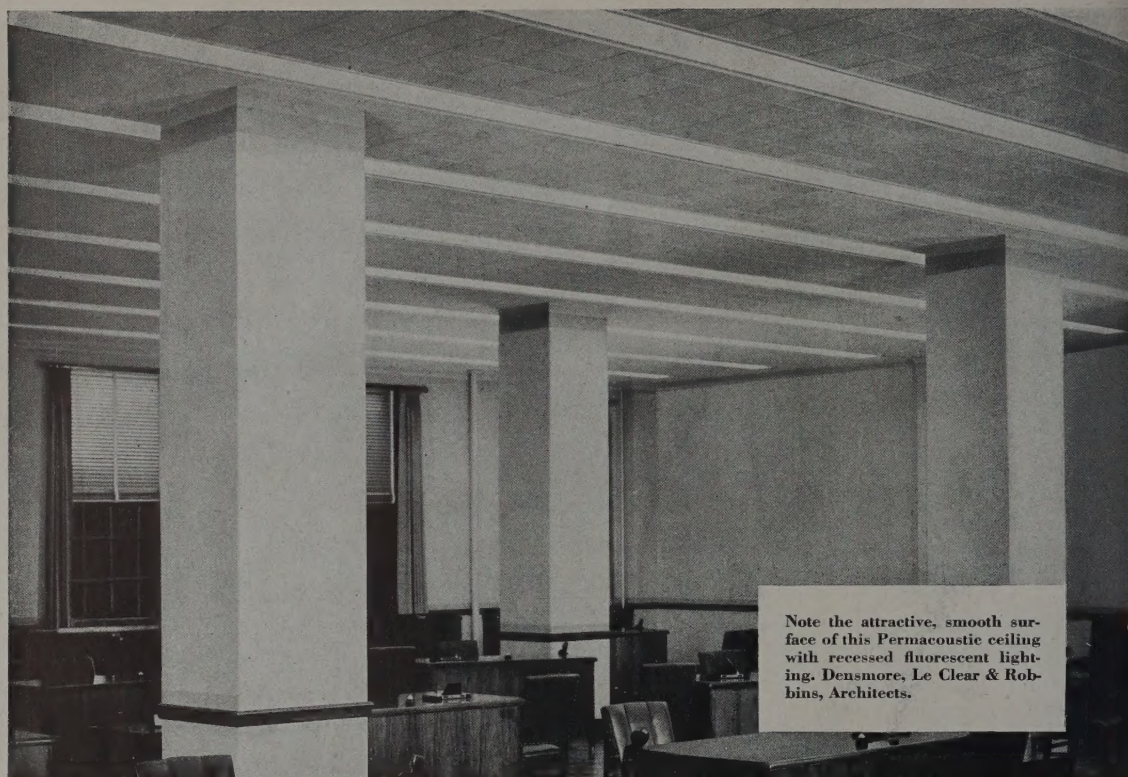
But it needs recognition from *you*—recognition in the way of dollars and cents. For the six national agencies which comprise the USO are publicly supported.

Now above all times, to make your dollars count, give to the USO!

Send your contribution to your local USO Committee or to National Headquarters, USO, Empire State Building, New York, N. Y.

# Give to the USO





Note the attractive, smooth surface of this Permacoustic ceiling with recessed fluorescent lighting. Densmore, Le Clear & Robbins, Architects.

## J-M PERMACOUSTIC with Fluorescent Lighting

**Description:** This distinctive ceiling construction combines two modern developments, J-M Sound-Control and Fluorescent Lighting, in one specification. The J-M Acoustical Material is Permacoustic . . . an attractive ceramic tile with a stone-like texture which harmonizes with virtually any interior decorative treatment. In combination with fluorescent lighting, Permacoustic forms a flat, projection-free ceiling . . . assures quiet with an abundance of evenly distributed light.

**Application:** Permacoustic itself is easily handled and applied. The lighting troffers are suspended from plasterer's channels in the conventional manner. The Permacoustic is installed as a suspended ceiling.

**Advantages:** This ceiling offers the advantages of the most modern methods of lighting and acoustical treatment. Permacoustic is a highly efficient acoustical material. Being all mineral, it is fireproof, rotproof, unaffected by moisture. It can be painted without loss of efficiency, cleaned by conventional methods.

For details on Permacoustic and other J-M acoustical products see Sweet's Catalog or write Johns-Manville, 22 E. 40th St., N. Y. C.



The attractive, stone-like texture of J-M Permacoustic is shown here. Note the interesting details of this installation.

### SOUND-ABSORPTION COEFFICIENTS

Tests by the official laboratory of the Acoustical Materials Assn.

| Material          | Thick-<br>ness | 128<br>Cycles | 256<br>Cycles | 512<br>Cycles | 1024<br>Cycles | 2048<br>Cycles | 4000<br>Cycles | Noise Red.<br>Coefficient |
|-------------------|----------------|---------------|---------------|---------------|----------------|----------------|----------------|---------------------------|
| Perma-<br>coustic | 3/4"<br>1"     | .19<br>.23    | .34<br>.44    | .74<br>.71    | .76<br>.68     | .75<br>.70     | .74<br>.73     | .65<br>.65                |

Light-Reflection Coefficients: Natural White, 73%; Painted, 85%

# JOHNS-MANVILLE

## PIONEERS IN SOUND CONTROL



# Design the Job for **TIMBER FRAMING**

Now, Glued Lamination and Teco Connectors  
give you beams, arches and roof trusses of light weight  
and great strength for wide post-free spans!

**Architects and engineers** are proceeding with essential war-time construction by using wood structural framing members. For great hangars and military chapels, for ship and airplane factories, for almost any type of structure, lumber is being engineered and shaped, formed and joined to meet a wide range of specific structural needs.

**The Teco connector system** of wood construction makes possible standard timber trusses for spans up to 100' or more, using no timber heavier than 3 x 12. Such trusses can be factory fabricated and often delivered to the job site assembled for ready erection—or the pre-fabricated members can be delivered knocked-down, ready for assembly.

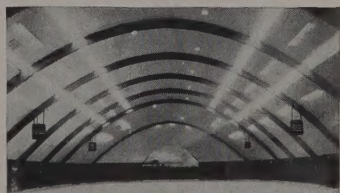
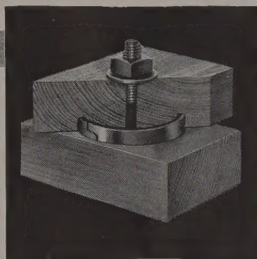
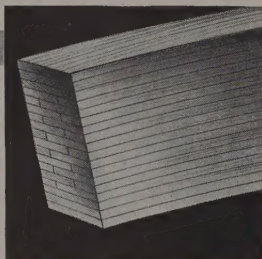
**Glued laminated structural members** are available in a variety of sizes, types and shapes. Beam arches for spans up to 200 feet or more—ply beams for flat roof structures of one and two stories—bowstring trusses, boomerang and utility arches and arch rafters can be designed and factory fabricated for the job you are now planning, regardless of its size or location.

**It is easy to design** the job for wood structural framing members. Complete data is available. Skilled fabricators are making standard timber trusses and glued laminated structural members to exacting specifications, which meet Army, Navy and Building Code requirements—shipping them to the job for speedy erection. Their engineering staffs are ready to cooperate with you . . . Write today for information.

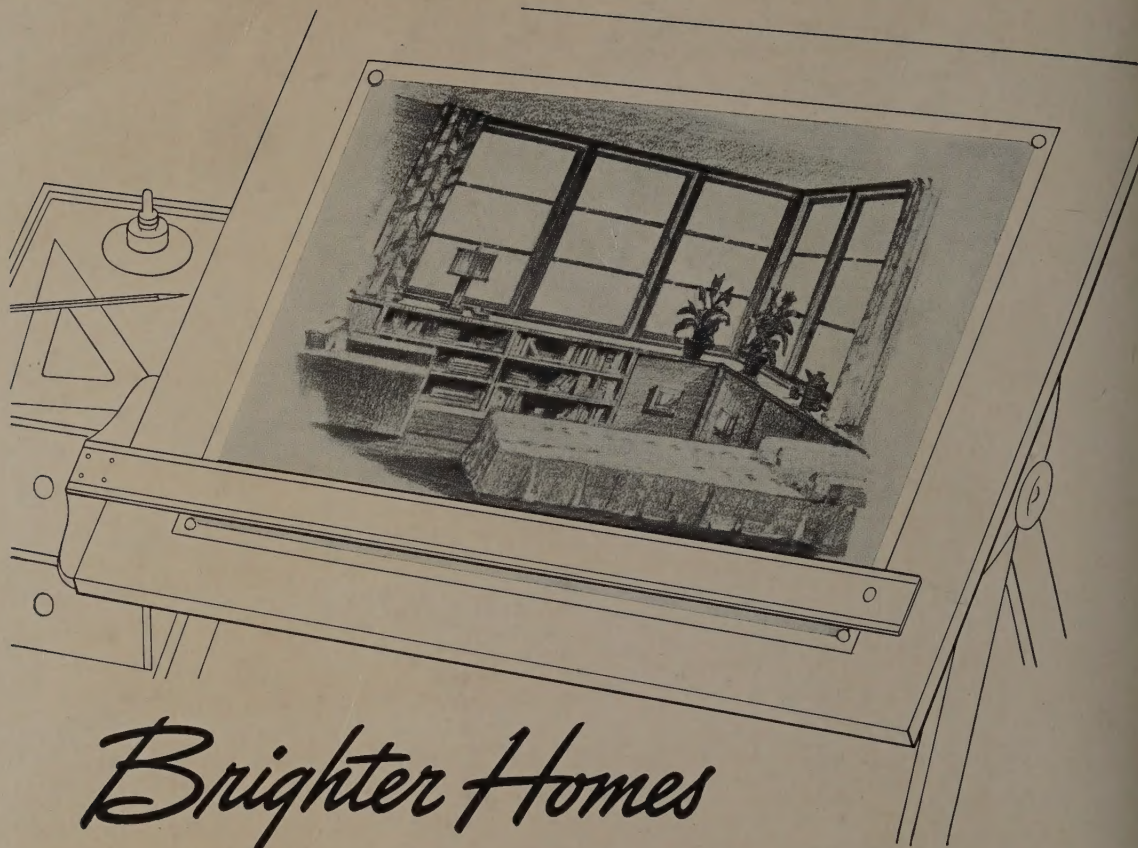
Copyright 1942, Weyerhaeuser Sales Company

**WEYERHAEUSER SALES CO.**

First National Bank Building • Saint Paul, Minnesota







# Brighter Homes

are on Tomorrow's Planning Boards

One thing sure about tomorrow's homes, they're going to be made brighter and more livable through use of larger window areas, and through installation of many new glass features.

Picture and corner windows, which were becoming an important part of architectural design in pre-war days, promise to be even more prominent in tomorrow's homes. The opportunities these windows offer for added spaciousness, sunlight and cross ventilation open the way to new possibilities for better living.

More generous use of built-in mirrors in every room of the home also will open the way to greater livability.

Recent surveys made by Libbey-Owens-Ford reveal that practically every homeowner desires more mirrors.

New applications of decorative glass in outside walls and interior partitions promise to provide another practical way of increasing natural light in rooms and hallways . . . will add substantially to decoration possibilities.

The opportunities of designing and building *better* with glass are endless. May we send you our new booklet, "Practical Glass Ideas," which contains many interesting suggestions? Write Libbey-Owens-Ford Glass Company, 1230-A Nicholas Building, Toledo, Ohio.



**LIBBEY • OWENS • FORD**

QUALITY *Flat Glass* PRODUCTS